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Government
Publications

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ERRATA

Page.	Star.		Column.				
22	Green.	6905	5	For	25″·22	read	25″·31
23	"	928	"	"	49″·48	"	49″·38
26	"	2057	"	"	42″·02	"	41″·89
27	"	5577	"	"	21″·62	"	21″·71
"	"	6943	"	"	47″·85	"	47″·96
"	"	6277	"	"	00″·57	"	00″·49
28	"	2791	"	"	37″·91	"	37″·86
29	"	2425	"	"	58″·00	"	58″·05
"	"	4512	"	"	47″·04	"	46″·99
30	"	530	"	"	21″·90	"	21″·98
31	"	5041	"	"	52″·87	"	53″·02
34	"	1475	"	"	31″·56	"	31″·63
"	"	3610	"	"	03″·72	"	03″·81
36	"	7754	"	"	12″·52	"	12″·66
39	"	549	"	"	34″·15	"	34″·09
41	"	2473	"	"	32″·85	"	33″·02
"	"	7043	"	"	05″·41	"	05″·60
42	"	975	"	"	47″·98	"	47″·91
43	"	5677	"	"	16″·09	"	16″·20
45	"	7065	"	"	54″·93	"	54″·81
"	"	3238	"	"	30″·74	"	30″·85
46	"	9462	"	"	50″·04	"	50″·17
53	"	5153	"	"	49″·40	"	49″·45
54	"	2881	"	"	34″·57	"	35″·17
55	"	7864	"	"	35″·05	"	35″·00
57	"	1541	"	"	37″·72	"	37″·85
58	"	414	"	"	13″·45	"	13″·52
"	"	7890	"	"	59″·03	"	59″·15
59	"	4149	"	"	14″·85	"	14″·90
"	"	5767	"	"	22″·32	"	22″·27
60	"	8695	"	"	10″·04	"	09″·95
"	"	8696	"	"	57″·80	"	57″·73
62	"	3299	"	"	43″·28	"	43″·43
64	"	8727	"	"	44″·37	"	43″·37
68	"	5233	"	"	01″·36	"	01″·21
"	"	10096	"	"	19″·54	"	19″·48
69	"	7234	"	"	41″·48	"	41″·42
70	"	1032	"	"	22″·45	"	22″·37
"	"	5843	"	"	25″·42	"	25″·59
73	"	5873	"	"	58″·74	"	58″·68
74	"	1046	"	"	51″·53	"	51″·62
75	"	7273	"	"	05′57″·28	"	04′57″·29
77	"	6599	"	"	40″·40	"	40″·48
80	"	8868	"	"	17″·98	"	17″·93
81	Green.	1927	5	For	24″·55	read	24″·50
"	"	838	"	"	55″·46	"	55″·85
"	"	4267	"	"	01″·37	"	01″·28
83	"	6637	"	"	23″·69	"	23″·56
"	"	1323	"	"	51″·99	"	51″·94
"	"	1325	"	"	05″·74	"	05″·67
85	"	3842	"	"	15·″55	"	15″·44
86	"	6659	"	"	07″·34	"	07″·28
"	"	1625	"	"	24″·12	"	24″·06
87	"	1626	"	"	31″·02	"	31″·11
"	"	2282	"	"	10″·86	"	10″·55
88	"	5357	"	"	18″·41	"	18″·48
"	"	8946	"	"	19″·49	"	19″·43
"	"	3023	"	"	04″·58	"	04″·70
"	"	8947	"	"	33″·77	"	33″·70
89	"	3026	"	"	20″·04	"	20″·13
91	"	6029	"	"	32″·86	"	32″·91
94	"	6731	"	"	21″·80	"	21″·60
96	"	3889	"	"	53″·78	"	53″·66
97	"	1670	"	"	07″·06	"	06″·82
98	"	2688	"	"	22″·49	"	22″·64
"	"	878	"	"	32″·58	"	32″·51
"	"	2689	"	"	39″·61	"	39″·77
100	"	6085	"	"	30″·73	"	28″·61
101	"	4861	"	"	19″·35	"	19″·40
103	"	2709	"	"	49″·50	"	49″·63
104	"	1692	"	"	17″·32	"	17″·41
106	"	1380	"	"	37″·98	"	37″·62
"	"	6106	"	"	02″·74	"	02″·84
111	"	2724	"	"	11″·32	"	11″·39
"	"	2725	"	"	48″·28	"	48″·07
"	"	8287	"	"	58″·15	"	58″·22
"	"	8291	"	"	29″·73	"	29″·79
112	"	4903	"	"	26″·68	"	26″·77
113	"	8301	"	"	24″·41	"	24″·49
"	"	9175	"	"	32″·68	"	32″·73
114	"	9977	"	"	20″·59	"	20″·52
116	"	1132	"	"	48″·91	"	48″·82
"	"	6177	"	"	50″·37	"	50″·29
118	"	511	"	"	29″·63	"	29″·58
125	"	549	"	Add −0″·06 to declinations.			
126	"	414	"	"	+0″·07	"	"
130	"	511	"	"	−0″·05	"	"

ERRATA

Page.	Star.	Column.	For		read	
21—A.	7793	3	08^s.8	read	10^s.7
" — "		4	" + 3^s.07	"	+ 3^s.13
" — "		5	" 20″	"	21″
" — "		6	" +20″.05	"	+20″.09
" —A.	60	3	" 33^s.4	"	33^s.3
" — "		5	" 16″	"	15″
23—A.	155	3	" 19^s.9	"	20^s.1
" — "		5	" 37″	"	36″
25—A.	259	5	" 15″	"	13″
" —A.	300	5	" 54″	"	52″
29—A.	520	3	" 35^s.7	"	35^s.9
33—A.	765	3	" 10^s.7	"	10^s.8
" — "		5	" 02″	"	00″
35—A.	964	3	" 47^s.2	"	47^s.0
39—A.	1217	3	" 48^s.7	"	48^s.9
41—A.	1334	3	" 42^s.9	"	43^s.1
44—A.	1497	3	" 25^s.7	"	25^s.8
" — "		5	" 39″	"	41″
" —A.	1535	3	" 23^s.2	"	23^s.1
" — "		5	" 08″	"	10″
47—A.	1749	5	" 17″	"	14″
48—A.	1800	5	" 24″	"	18″
49—A.	1875	3	" 07^s.6	"	07^s.5
" — "		5	" 10″	"	08″
51—A.	2019	3	" 40^s.1	"	40^s.5
" — "		5	" 19″	"	24″
" —A.	2042	3	" 16^s.9	"	16^s.6
" — "		5	" 48″	"	47″
53—A.	2204	5	" 46″	"	51″
57—A.	2624	3	" 59^s.2	"	58^s.9
" — "		5	" 49″	"	51″
" —A.	2643	3	" 42^s.9	"	42^s.7
" —A.	2681	3	" 38^s.7	"	38^s.4
62—A.	3110	3	" 20^s.5	"	20^s.2
" — "		5	" 58″	"	54″
65—A.	3432	3	" 32^s.9	"	32^s.8
" — "		5	" 59″	"	57″
68—A.	3632	3	" 50^s.5	"	50^s.4
" — "		5	" 27″	"	28″
70—A.	3795	3	" 09^s.6	"	09^s.4
" — "		5	" 50″	"	49″
" —A.	3821	3	" 44^s.0	"	43^s.9
" — "		5	" 01″	"	00″
71—A.	3864	3	" 01^s.1	"	00^s.8
72—A.	3987	3	" 09^s.6	"	09^s.8
73—A.	4002	3	" 47^s.1	"	46^s.7
74—A.	4140	3	" 24^s.6	"	24^s.2
" —A.	4144	3	" 44^s.4	"	44^s.7
75—A.	4193	3	" 14^s.4	"	13^s.6
" — "		5	" 21″	"	24″
" —A.	4225	3	" 22^s.5	"	22^s.2
" —A.	4247	3	" 50^s.4	"	49^s.7
" — "		5	" 22″	"	21″
76—A.	4312	3	" 03^s.4	"	02^s.8
" — "		5	" 03″	"	05″
" —A.	4350	5	" 48″	"	49″
77—A.	4372	3	" 49^s.5	"	49^s.2
" — "		5	" 24″	"	26″
" —A.	4375	3	" 46^s.6	"	46^s.2
78—A.	4471	5	" 22″	"	20″
79—A.	4540	3	" 22^s.0	"	21^s.7
" — "		5	" 31″	"	29″
80—A.	4644	5	" 40″	"	41″
" —A.	4665	3	" 33^s.8	"	33^s.7
" — "		5	" 15″	"	14″
" —A.	4674	5	" 29″	"	30″
" —A.	4689	3	" 24^s.0	"	23^s.8
" — "		5	" 25″	"	26″
" —A.	4700	3	" 13^s.9	"	14^s.2
" — "		5	" 58″	"	59″
81—A.	4716	3	" 19^s.5	"	18^s.6
" — "		5	" 47″	"	54″
" —A.	4783	3	" 12^s.7	"	12^s.8
" — "		5	" 21″	"	20″
82—A.	4846	3	" 08^s.7	"	08^s.2
" — "		5	" 00″	"	05″
" —A.	4876	3	" 50^s.5	"	50^s.4
" — "		5	" 48″	"	49″
83—A.	4991	3	" 01^s.7	"	01^s.8
" — "		5	" 07″	"	03″
84—A.	5083	3	" 18^s.7	"	18^s.6
" — "		5	" 02″	"	03″
88—A.	5414	5	" 10″	"	03″
" —A.	5417	5	" 22″	"	21″
89—A.	5482	5	" 50″	"	51″
" —A.	5480	3	" 09^s.0	"	08^s.7
" — "		5	" 50″	"	51″
90—A.	5573	3	" 37^s.6	"	37^s.7
" — "		5	" 22″	"	19″
92—A.	5729	3	" 53^s.6	"	53^s.4
" — "		5	" 57″	"	55″
95—A.	5942	3	" 52^s.3	"	52^s.4
" — "		5	" 14″	"	11″
" —A.	5955	3	" 06^s.7	"	06^s.6
" — "		5	" 14″	"	16″
96—A.	6031	3	" 57^s.8	"	57^s.7

Page.	Star.	Column.				
96	A. 6031	5	For	38″	read	37″
97	A. 6140	5	"	45″	"	44″
98	A. 6178	3	"	55ˢ.0	"	55ˢ.2
"	— "	5	"	17″	"	07″
"	—A. 6181	5	"	14″	"	16″
103	A. 6526	3	"	40ˢ.5	"	40ˢ.7
"	— "	5	"	51″	"	52″
106	A. 6691	5	"	04″	"	06″
107	A. 6725	5	"	53″	"	55″
108	A. 6806	5	"	10″	"	07″
"	—A. 6812	3	"	29ˢ.2	"	29ˢ.6
109	G. 5722	6	"	+14″.346	"	+14″.146
"	—A. 6876	3	"	19ˢ.6	"	19ˢ.8
"	— "	5	"	53″	"	50″
110	A. 6950	3	"	34ˢ.5	"	34ˢ.8
"	—A. 6980	3	"	51ˢ.9	"	52ˢ.1
"	— "	5	"	07″	"	05″
"	—A. 6984	3	"	15ˢ.6	"	15ˢ.8
113	A. 7136	3	"	03ˢ.7	"	03ˢ.5

Page.	Star.	Column.				
113	A. 7152	5	For	43″	read	48″
114	A. 7197	3	"	11ˢ.7	"	11ˢ.9
"	— "	5	"	44″	"	43″
"	—A. 7218	3	"	01ˢ.5	"	01ˢ.6
"	— "	5	"	36″	"	34″
115	A. 7292	3	"	55ˢ.0	"	55ˢ.2
"	— "	5	"	51″	"	52″
118	B. 5910	2	"	6ᵐ.0	"	5ᵐ.0
119	A. 7509	3	"	49ˢ.3	"	49ˢ.8
"	— "	5	"	46″	"	47″
"	—A. 7517	3	"	02ˢ.2	"	02ˢ.3
"	— "	5	"	55″	"	54″
"	—A. 7554	3	"	09ˢ.9	"	10ˢ.0
"	— "	5	"	44″	"	43″
120	A. 7583	3	"	35ˢ.5	"	35ˢ.9
"	— "	5	"	30″	"	33″
"	—A. 7589	3	"	18ˢ.4	"	18ˢ.3
"	— "	5	"	40″	"	39″
122	A. 7717	3	"	29ˢ.0	"	29ˢ.2

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[Bulletin no 24]

TOPOGRAPHICAL SURVEYS BRANCH
DEPARTMENT OF THE INTERIOR
CANADA

A CATALOGUE OF STARS

FOR

LATITUDE OBSERVATIONS

ON

DOMINION LANDS SURVEYS

LIBRARY
APR 21 1936
UNIVERSITY OF TORONTO

E. DEVILLE, LL.D.
Surveyor General

326316 36.
4.
22.

OTTAWA
CANADA
1914

E. DEVILLE, ESQ., LL.D.,
Surveyor General.

SIR,—

I have the honour to submit herewith a catalogue of stars prepared under my direction, giving the mean positions for 1910.0 of all stars plotted on the latitude star charts. This catalogue has been prepared for the purpose of facilitating field computations and dispensing with the necessity of star catalogues in the field. I believe it will prove to be a great convenience to those surveyors taking latitude observations.

Respectfully submitted,

G. BLANCHARD DODGE,
Chief of Special Surveys Division.

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INTRODUCTION.

AN observing list for the determination of latitude by Talcott's method, when confined to one catalogue, will give long intervals between pairs in the latitudes covered by Dominion Land Surveys, and one night's observing is not likely to give the surveyor many pairs of stars for his determination. The preparation of a list where a number of catalogues has to be consulted is a laborious task, and one which requires a considerable amount of time. Surveyors on base lines and meridians have not much time to spare, nor are they in a position to know for more than two or three days ahead at the extreme, just where an observation will be taken. Again, in the country where these surveys are now being projected, every additional pound of outfit required is a matter for consideration, and the surveyor resents the extra weight necessitated by the carrying of a number of star catalogues. It was for these reasons that, in 1910, star charts were published for facilitating the selection of stars. These charts contained all stars up to the seventh magnitude from 5° south declination to 90° north given in the Berliner Jahrbuch, British Nautical Almanac, Star List of the American Ephemeris, and Connaissance des Temps for 1910, Greenwich Second Nine-Year Catalogue for 1900, Greenwich Second Ten-Year Catalogue for 1890 and Ambronn's Sternverzeichnis for 1900. The positions were reduced to a common epoch of 1910.0.

So far as the observing list was concerned, the charts dispensed with the need of the catalogues, and, moreover, while a list for a whole night's observing when prepared from the several star catalogues mentioned was a task of three or four hours' duration, the same list could be prepared from the charts in half an hour's time. But if the surveyor was later to compute the results of his observations, the necessity for his taking along the star catalogues still remained. This was recognized at the time the charts were published, and the preparation of a catalogue of stars giving the mean places, annual variation, etc., for 1910.0 of all stars plotted on the charts was put in hand. Owing to the small staff of the division and the press of other work, the compilation passed through a number of hands and finally had to be dropped altogether. It was not until the end of 1912, that the work was finally completed.

Just at this time a copy of Boss' Star Catalogue for 1900.0 was received. Now the results of large numbers of pairs of stars in zenith telescope observations had previously shown that those pairs of stars which had the largest residuals from the resulting mean latitudes were almost invariably pairs composed of either two Ambronn stars or one Ambronn and another star. For this reason the same confidence was not placed on Ambronn stars as on the stars of the other catalogues. When the positions of such stars as were given in both Ambronn and Boss were computed from both catalogues it was found that there were many stars which showed differences in declination as high as 5″ and some even as much as 8″ and over. It was decided therefore to revise the catalogue by giving the positions of such Ambronn stars as were in the Boss Catalogue from the latter catalogue. Mr. Waugh took this in hand, but was obliged to leave for the field before the revision was completed. The work was then carried on by Messrs. W. H. Herbert, B.Sc., and H. S. Van Patter, M.A.

The substitution of Boss for Ambronn stars had also shown that Boss' Catalogue contained a large number of stars available for our catalogue not given in the other catalogues. At the time that Mr. Herbert along with Mr. Van Patter took

up the revision, it was decided to further revise the catalogue by adding these Boss stars, and at the same time to substitute Boss positions for the Connaissance des Temps stars and for such Greenwich 1890 stars as were given in Boss.

In order to give some idea of the amount of work entailed in the preparation of the catalogue, it may be stated that about sixty thousand calculations were made. Each computation was made independently by two computers and the results compared. The computation and final checking were supervised by Mr. Herbert. The catalogue was further checked by using it to compute a number of latitude observations, the observations being checked by another computer using the original star catalogues. It is hoped that there are very few errors and that they are of small magnitude. It is to be borne in mind, however, that the catalogue is intended to take the place of the original catalogues only in the field or first computations. In the final computations in the office, the original star catalogues may still be used. The secular variation has been computed for all the stars. It is not given in the Ambronn Catalogue. It will be found convenient therefore to use our catalogue in place of this catalogue in the office computations.

The inclusion of a large number of Boss stars not shown on the star charts necessitated a revision of the charts. This has been done by Mr. Herbert, and a new edition of the charts has been printed.

G. BLANCHARD DODGE.

Ottawa, 1914

COMPARATIVE LIST OF DECLINATIONS FROM BOSS AND AMBRONN.

As stated in the Introduction, the Catalogue was originally prepared from the Berliner Jahrbuch, Nautical Almanac, Star List of the American Ephemeris, Connaissance des Temps, Greenwich Second Nine-Year Catalogue, 1900, Greenwich Second Ten-Year Catalogue, 1890, and Ambronn's Sternverzeichnis, 1900. As Ambronn was last in order of precedence, the Ambronn stars selected for our Catalogue were not given in the other catalogues. When the Boss Catalogue arrived and was compared with our catalogue, it was found that a great many of these Ambronn stars were given in Boss, but that there were many serious differences in declination. Tabulated below is a list of all the Ambronn stars in our catalogue superseded by Boss, whose declinations as given by Ambronn and Boss differ by 2″ and over. The declinations are given for 1900.0, the common epoch of both catalogues.*

Star Number		Declination			
Boss	Ambronn	Degrees and Minutes	Seconds		
			Boss	Ambronn	Diff.
		° ′	″	″	″
394	451	+63 21	32.58	38	5
405	462	+32 10	60.66	43	18
470	545	+25 27	13.18	09	4
666	784	− 4 06	53.88	51	3
677	800	− 3 10	53.05	50	3
790	941	+49 09	45.07	47	2
901	1087	− 3 14	61.44	59	2
993	1194	+60 29	52.19	56	4
1129	1366	+31 15	48.58	52	3
1265	1543	+40 58	59.60	62	2
1383	1691	+ 7 28	54.88	35	20
1385	1695	+53 26	26.12	28	2
1422	1746	+15 47	00.02	02	2
1506	1868	+42 59	21.35	19	2
1550	1925	+16 09	11.08	13	2
1943	2462	+48 23	14.03	16	2
1986	2517	+46 24	02.42	05	3
2223	2836	+10 57	15.87	18	2
2289	2924	+53 44	58.64	61	2
2561	3249	+36 55	48.72	51	2

* The Ambronn stars have been corrected in declination by applying the proper motion for the interval extending from the epoch to 1900.0.

COMPARATIVE LIST OF DECLINATIONS FROM BOSS AND AMBRONN (Concluded).

Star Number		Declination			
Boss	Ambronn	Degrees and Minutes	Seconds		
			Boss	Ambronn	Diff.
		° ′	″	″	″
2578	3273	+31 36	35.90	38	2
2660	3363	+57 53	39.55	42	2
2768	3498	+34 18	19.05	21	2
3022	3769	+62 19	21.00	14	7
3033	3784	+61 38	10.62	13	2
3045	3799	+17 20	58.74	109	50
3195	3980	+33 37	13.37	16	3
3317	4118	− 1 01	37.66	35	3
3396	4209	+45 48	11.99	10	2
3490	4313	− 0 50	42.91	41	2
3500	4327	+42 37	13.90	12	2
3743	4639	+54 27	19.50	22	2
3822	4740	+50 02	14.34	17	3
3930	4874	+63 41	53.87	57	3
3968	4929	+10 20	40.36	46	6
4007	4975	+ 5 45	39.32	30	9
4047	5036	+56 07	19.54	17	3
4060	5052	+14 42	03.04	00	3
4240	5286	+56 12	39.98	37	3
4348	5423	− 1 31	17.74	15	3
4354	5431	+54 36	07.04	04	3
4447	5574	+16 23	17.89	20	2
4470	5600	+61 57	03.89	17	13
4589	5777	+43 26	55.97	58	2
4593	5782	+36 23	27.59	30	2
4609	5804	+54 15	23.65	22	2
4653	5873	+49 04	15.49	13	2
4712	5946	+ 9 02	36.69	39	2
4742	5995	+31 49	42.70	47	4
4770	6038	+48 39	10.14	08	2
4860	6159	+31 35	41.55	45	3
4893	6209	+49 40	08.67	00	9
4907	6222	+57 31	56.66	59	2
4937	6255	− 0 26	30.20	38	8
4967	6288	+19 41	32.86	35	2
5005	6333	+51 01	18.46	20	2
5012	6343	+44 28	23.64	26	2
5125	6489	+17 14	34.88	37	2
5163	6537	+52 51	71.54	12	60
5309	6711	+29 59	00.89	03	2
5362	6773	+51 32	21.02	27	6
5721	7232	+56 20	30.99	28	3
6075	7670	+49 55	04.02	06	2
6158	7765	+33 10	11.97	14	2

EXPLANATION OF THE CATALOGUE.

DERIVATION AND NOMENCLATURE.—The catalogue has been computed from the following ephemerides and star catalogues, precedence being given in the order named:—

Berliner Astronomisches Jahrbuch, 1910,
British Nautical Almanac, 1910,
Star List of American Ephemeris, 1910,
Second Nine-Year Catalogue, Greenwich, 1900,
Preliminary General Catalogue, Boss, 1900,
Second Ten-Year Catalogue, Greenwich, 1890,
Sternverzeichnis, Ambronn, 1900.

The symbols used for abbreviating the various catalogues are as follows:—

Symbol.	Star Catalogue.	Example.
B.J.	Berliner Jahrbuch, 1910.	B.J. 454 (Mittlere Sternörter). B.J. ϵ Ursae Minoris (Nördliche Polsterne).
N.A.	Nautical Almanac, 1910.	N.A. B.A.C. 4165. N.A. 35 Virginis.
A.E.	Star List of the American Ephemeris, 1910.	A.E. 32 H. Camelopardi. A.E. 70 Virginis.
Gr.	Greenwich Second Nine-Year Catalogue for 1900, pp. 3 to 33.	Gr. 887
Green.	Greenwich Second Nine-Year Catalogue for 1900 (Zones).	Green. 8884
B.	Preliminary General Catalogue for 1900, Lewis Boss.	B. 3537
G.	Greenwich Second Ten-Year Catalogue for 1890.	G. 3812
A.	Ambronn's Sternverzeichnis für 1900.	A. 4757

STAR MAGNITUDE.—The second column contains the star magnitude as given in the original star catalogue. Variable magnitudes are enclosed in brackets. Where a catalogue gives two values of magnitude for a variable star—maximum and minimum—the arithmetical mean is given, enclosed in brackets. In no case, however, does the minimum fall below 7.5.

STAR POSITIONS.—

If α_0 and δ_0 = the right ascension and declination for any time T.
α and δ = the right ascension and declination for any time $T+t$.

Then by Maclaurin's formula

$$\alpha = \alpha_0 + \left[\frac{d\alpha}{dt}\right] t + \tfrac{1}{2}\left[\frac{d^2\alpha}{dt^2}\right] t^2 + \ldots\ldots$$

$$\delta = \delta_0 + \left[\frac{d\delta}{dt}\right] t + \tfrac{1}{2}\left[\frac{d^2\delta}{dt^2}\right] t^2 + \tfrac{1}{6}\left[\frac{d^3\delta}{dt^3}\right] t^3 + \ldots\ldots$$

where the differential coefficients in right ascension and declination,

$$\left[\frac{d\alpha}{dt}\right], \quad \left[\frac{d\delta}{dt}\right],$$

include both precession and proper motion.*

MEAN RIGHT ASCENSION and MEAN DECLINATION.—The third and fifth columns contain the mean right ascension and mean declination respectively for 1910.0.

In the case of the B. J., N. A. and A. E. stars, these were taken directly from the catalogues. With the Boss, Greenwich and Ambronn stars the positions were computed as above, using the first and second differentials in the declination. With the close circumpolars the third term was investigated and where appreciable was applied. In order to dispense with the necessity of considering the third term in computing declinations from our catalogue, the positions of all stars whose declinations are north of 83° are given separately in a Catalogue of Stars from + 83° to + 90° declination for 1915.0, 1920.0 and 1925.0.

It will be noted that the data given for 1910.0 in this subsidiary catalogue for some of the stars differs very slightly from that given in the main catalogue for the same star. The reason for this is that the positions of all the ephemeris stars are deduced in the subsidiary catalogue from Boss, and are referred to as Boss stars. As they are fundamental stars, the differences are very small.

ANNUAL PRECESSION AND PROPER MOTION.—The fourth column gives the annual variation in right ascension $\left[\frac{d\alpha}{dt}\right]$, and the sixth column the annual variation in declination $\left[\frac{d\delta}{dt}\right]$. For the Boss, Greenwich and Ambronn stars, this had to be computed. The second differentials $\left[\frac{d^2\alpha}{dt^2}\right]$, $\left[\frac{d^2\delta}{dt^2}\right]$, are given in the form of a change per 100 years in the Boss and Greenwich catalogues, but are not given in Ambronn.

If $\left[\frac{d\alpha}{dt}\right]_0$ and $\left[\frac{d\delta}{dt}\right]_0$ = annual variation in right ascension and declination, respectively, for the epoch T of the original catalogue,

and $\left[\frac{d\alpha}{dt}\right]$ and $\left[\frac{d\delta}{dt}\right]$ = annual variation in right ascension and declination, respectively, for the epoch $T+t$ of our catalogue;

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* Doolittle's Practical Astronomy, p. 583.

then $\left[\frac{d\alpha}{dt}\right] = \left[\frac{d\alpha}{dt}\right]_0 + \frac{t}{100}\left[\frac{d^2\alpha}{dt^2}\right]_0$

$$\left[\frac{d\delta}{dt}\right] = \left[\frac{d\delta}{dt}\right]_0 + \frac{t}{100}\left[\frac{d^2\delta}{dt^2}\right]_0 + \frac{t^2}{2\times 10^6}\left[\frac{d^3\delta}{dt^3}\right]_0^*$$

the third term for $\left[\frac{d\delta}{dt}\right]$ being necessary only in the case of the close circumpolars.

CHANGE PER YEAR IN ANNUAL PRECESSION.—It was thought preferable to express the second differential $\left[\frac{d^2\delta}{dt^2}\right]$ in the form of a change per year rather than in a change per 100 years. It was necessary to compute it for every star, and it was calculated in one of the two following ways:—

(a) All the B. J., N. A., A. E., and some of the Gr. and Green. stars are given in the Boss Catalogue. The secular variation in declination for these and the Boss stars is calculated from the third term $\frac{1}{6}\left[\frac{d^3\delta}{dt^3}\right]$ as given by Boss.

If v_0 = secular variation in declination for epoch T of the original catalogue
v = secular variation in declination for epoch $T+t$ of our catalogue,

Then $\frac{1}{6}\left[\frac{d^3\delta}{dt^3}\right] = \left(\frac{v-v_0}{t}\right)\left(\frac{10000}{6}\right)$.

This method assumes that the third term for 1905 is the same as the third term for 1900—an assumption sufficiently correct for such a short period.

For the Northern Circumpolars given in Appendix I of the Boss Catalogue the secular variation in declination is generally given for the year 1910. Where it is given only for 1900 and for 1925, the value for 1910 is interpolated as being directly proportional to the time.

(b) The secular variation for the remainder of the stars is calculated as follows:†

$$\left[\frac{d^2\delta}{dt^2}\right] = \frac{dn}{dt}\frac{1}{n}\left(\frac{d\delta}{dt} - \mu'\right) - 15n \sin 1''\left(\frac{d\alpha}{dt} + \mu\right)\sin\alpha - \ldots\ldots$$

where $n = 20.''0607 - 0''.0000863t$ (t being interval in years elapsed since 1800),

μ and μ' = proper motions in right ascension and declination respectively, and where in the above formula $\frac{d\alpha}{dt}$ and μ are expressed in time; and n, $\frac{d\delta}{dt}$ and μ' in arc. Reducing, this formula becomes, for 1910.0

$$\left[\frac{d^2\delta}{dt^2}\right] = -0''.0000863 \cos\alpha - 0''.001458164 \sin\alpha\left(\frac{d\alpha}{dt} + \mu\right).$$

PROPER MOTION IN DECLINATION.—The proper motion for each star is obtained from its own catalogue, except in the case of the star list of the American Ephemeris. As this catalogue gives no proper motions, the proper motions are obtained from the Boss Catalogue. The proper motions of many of the stars in the Boss Catalogue are modified by the secular variation in proper motion given by the term $100\triangle\mu'$.

If μ'_0 = proper motion in declination for the Boss Catalogue (1900.0)
μ' = proper motion in declination for our catalogue (1910.0),

Then $\mu' = \mu'_0 + 10\triangle\mu'$.

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* The third term is assumed to be ten thousand times the annual variation in secular variation. Boss tabulates one-sixth of this.

† Doolittle's Practical Astronomy, p. 589.

REDUCTION OF STAR PLACES.

(The following is largely adapted from Hayford's Geodetic Astronomy).

The *mean place* of a star is its position referred to the mean equator and mean ecliptic, as distinguished from its position as referred to the actual or true equator and ecliptic. The equator and ecliptic as they would be if unaffected by periodic variations, in other words by nutation, are called the *mean equator* and *mean ecliptic.*

The *mean* place of a star, then, at a given instant, differs from the true place by the effect of nutation at that instant, and from the *apparent* place by the effects of both nutation and annual aberration.

To avoid inconveniences arising in the course of computations of star places, if any other form of year is employed in reckoning time, the astronomer uses what is called the *Besselian fictitious year.* The beginning of the fictitious year differs from the beginning of the ordinary year by a fraction of a day, which varies for different years.

The reduction from the mean place given in the catalogue to the apparent place for any given date is made in two steps.

Firstly, the mean place of the star is reduced from 1910.0 to the beginning of the fictitious year at some part of which its apparent place is desired.

If α_0 and δ_0 are the mean right ascension and declination as given in the catalogue, the mean right ascension and declination α and δ for the beginning of some year t are

$$\alpha = \alpha_0 + (t - 1910.0)\left[\frac{d\alpha}{dt}\right] + \ldots\ldots$$

$$\delta = \delta_0 + (t - 1910.0)\left[\frac{d\delta}{dt}\right] + \tfrac{1}{2}(t - 1910.0)^2\left[\frac{d^2\delta}{dt^2}\right] + \ldots\ldots$$

where $\left[\frac{d\alpha}{dt}\right], \left[\frac{d\delta}{dt}\right]$ are the annual precession and proper motion in right ascension and declination, respectively, as given in the catalogue, and $\left[\frac{d^2\delta}{dt^2}\right]$ is the change per year in annual precession.

In the formula for declination given above only the first two terms of the expression are given. This is sufficiently accurate for all but the close circumpolar stars. With these stars the change in the change per year in annual precession is very often sufficient to make the application of the third term necessary. To avoid this and shorten the labour of reduction, the positions of all stars in the main catalogue whose declinations are between $+83°$ and $+90°$ are given separately in a subsidiary catalogue for every 5 years from 1910 to 1925. The reduction of declination to mean place at the beginning of the desired year is then made as above, taking for δ_0, $\left[\frac{d\delta}{dt}\right]$ and $\left[\frac{d^2\delta}{dt^2}\right]$ the data given for the epoch immediately previous to the year for which the declination is required.

Secondly, the mean place of the star is reduced from the beginning of the year to the apparent place at the given date. This involves reducing the mean place down to the given date and then applying to that result the effect of nutation and aberration at that date. This reduction has been put in the following convenient form:—

$$\alpha' = \alpha + f + {}^1{}_5\, g \sin (G + \alpha) \tan \delta + {}^1{}_5\, h \sin (H + \alpha) \sec \delta + \tau\mu \text{ (in time)}$$

$$\delta' = \delta + g \cos (G + \alpha) + h \cos (H + \alpha) \sin \delta + i \cos \delta + \tau\mu' \text{ (in arc)}$$

in which α' and δ' are the required apparent right ascension and declination respectively; τ is the time elapsed from the beginning of the fictitious year expressed in a fraction of the year; μ and μ' are the annual proper motions in right ascension and declination respectively; and f, G, H, g, h and i are quantities called *independent star numbers*, which are functions of the time only, and are given in the Nautical Almanac (pp. 224-251, for 1915 Almanac) for mean midnight at Greenwich for every day of the year.

As an example:—An observation for latitude was taken 31.58 chains west of the northeast corner of section 35, township 108, range 18, west of the Fifth Meridian, on the 20th August, 1913. One of the stars observed was B.5218. Its apparent declination is wanted at the time of observation:—

From the catalogue

α_0 $= 20^h 16^m 11^s.4$, annual variation $= +\ 1^s.48$

δ_0 $= 55°06'\ 55''.32$, " " $= +11''.204$

Change per year in precession $= +0''.00175$

μ' $= -0''.020$

	h	m	s
Aug. 20 —Sidereal time of obsn. $= \alpha$	20	16	16
Place of obsn. west of Greenwich	7	47	32
Sidereal time at Greenwich	28	03	48
Aug. 20— " " " mean noon Greenwich	9	52	52
" " elapsed since mean noon Greenwich	18	10	56
Corrn. for reduction to mean time		2	59
Aug. 20—Mean Greenwich time of obsn	18	07	57

Greenwich date.....Aug. 20.75

The Nautical Almanac (p. 249) gives the following star quantities:

	log g	G	log h	H	log i
Aug. 20.5	1.2188	325°44′	1.2853	124°58′	0.8362
" 21.5	1.2202	325 48	1.2847	123 58	0.8408

hence for

	log g	G	log h	H	log i
Aug. 20.75	1.2191	325 45	1.2851	124 43	0.8373

and for τ (page 235 of Almanac) 0.630.

The computation is then made as follows:—

Star		B. 5218
Greenwich date		August 20.75
Annual var'n. x Int.	$= +11.''204 \times 3$	$= +33''.612$
Change per year in annual precession x $\frac{1}{2}$ Int^2	$= +0''.00175 \times 4.5$	$= +\ .008$
Total change		$= +33.62$
Mean Declination 1910		55°06′ 55″.32
" " 1913		55 07 28 .94
Mean right ascension 1913 = 20^{h}16^{m}15^s		= 304°04′
G		325 45
H		124 43
g	1.2191	
cos ($G + \alpha$) 269°49′	0. n	
	1.2191n	$-16''.56$
h	1.2851	
cos ($H + \alpha$) 68°47′	9.5586	
sin δ	9.9140	
	0.7577	$+5.''72$
i	0.8373	
cos δ	9.7573	
	0.5946	$+3''.93$
$\tau\mu' = 0.63 \times -0''.020$		$-0''.01$
Total correction		$-6''.92$
Apparent Declination		55°07′22″.02

When a number of star places have to be reduced, as in the case of a latitude observation, it will be found that the reductions can be made most expeditiously if all are carried along at the same time. On the forms provided, the star's mean right ascension for 1913 (to the nearest second or two of time), mean declination for 1910, annual variation in declination, change per year in annual precession and proper motion in declination should be filled in from the catalogue for all the stars at one time. It is not necessary to take out the values of τ, f, G, H, $\log g$, $\log h$ and $\log i$ for each star. The values for every full hour (sidereal time) of the observation may be interpolated from the values given in the Nautical Almanac and tabulated. Thus, if the observation began at 14^{h}20^m sidereal time, and continued until 23^{h}30^m the values of τ, f, G, H, $\log g$, $\log h$ and $\log i$ should be tabulated for 15^h, 16^h, 17^h, . . . to 23^h sidereal time for the longitude of the place of observation. The values for each star may then be taken from the table for the hour nearest the transit of the star. This will be found sufficiently accurate and will save considerable time.

The Nautical Almanac, Berliner Jahrbuch, American Ephemeris, etc., give the apparent position of a number of stars for every tenth day of the year. When the declination of one of these stars is required for a latitude observation, it is necessary to interpolate by second differences. If there are a number of such stars, this may be conveniently done as follows:—

If F_I is the required interpolated value of the declination for the time V_I, F_2 the declination for the time V_2, V_2 being the nearest stated time in the ephemeris to the time for which the interpolated declination is required, F_1 and F_3 the declinations for the nearest times V_1 and V_3 adjacent to V_2 for which the declinations are given, then

$$F_I = F_2 + \left[\frac{F_2 - F_1}{V_2 - V_1}\right] + \left[\left\{\frac{F_3 - F_2}{V_3 - V_2} - \frac{F_2 - F_1}{V_2 - V_1}\right\}\frac{V_I - V_1}{V_3 - V_1}\right][V_I - V_2]$$

As in the case under consideration V_2–V_1, V_3–V_2 are always equal to 10 and V_3–V_1=20, the expression may be further simplified to

$$F_I = F_2 + \left[\frac{F_2 - F_1}{10}\right]\{V_I - V_2\}$$
$$+ [(F_3 - F_2) - (F_2 - F_1)]\left[\frac{(V_I - V_2 + 10)(V_I - V_2)}{200}\right]$$

which will be found a very convenient form for rapid interpolation.

As an example: At the same place and date as given in the example for reduction of star's mean place from catalogue to apparent place at date, the star B. J. 707 or *o* Draconis was observed.

Long. of place of obsn.	$0^d.324$ W. of Green.
Long. of Berlin.	0.0372 E. of Green.
Long. of place of obsn.	0.36 W. of Berlin.

Looking up to see whether the date should be entered as Aug. 19 or Aug. 20, we find that the sidereal time of mean noon for the 20th. Aug. is 9^h52^m and as the right ascension of *o* Draconis is 18^h49^m we know the Berliner date can be entered as 20.36 or V_I=20.36.

The apparent declination of *o* Draconis is given on page 341 of the Jahrbuch as follows:—

Aug.	8 or V_1	59°16′59″.7	$=F_1$
		+2.5	$=F_2$–F_1
"	18 or V_2	62.2	$=F_2$
		+2.2	$=F_3$–F_2
"	28 or V_3	64.4	$=F_3$

(The arithmetical values of F_2–F_1 and F_3–F_2 are tabulated in the Jahrbuch. Attention must always be paid to the sign).

Then F_1=59° 16′ 62″.2 + $\left[\frac{+2.5}{10}\right]\{20.36-18\}$

$$+ [(+2''.2) - (+2''.5)]\left[\frac{(20.36 - 18 + 10)(20.36 - 18)}{200}\right]$$

=59° 16′ 62″.2+0″.590−0″.043
=59° 17′ 02″.75

In connection with the third term it will be noted that if V_I is taken for the middle of the observation, $\left[\frac{(V_I - V_2 + 10)(V_I - V_2)}{200}\right]$ may be considered a constant for each night, $[(F_3-F_2)-(F_2-F_1)]$ varying with the stars. Where there is a number of stars for each night the values of the third term for $(F_3-F_2)-(F_2-F_1)$ = ″.01, ″.02, ″.03, ″.04 and ″.05 are tabulated. It is then quickly applied for each interpolation.

INSTRUCTIONS FOR THE USE OF THE STAR CHARTS.

The charts show all stars of the Star Catalogue.

If the transparent or upper sheet is placed on the opaque or lower sheet so that the horizontal lines of the upper sheet for that particular declination which is equal to the latitude is directly over the same line of declination through its whole length on the lower sheet, all stars on the upper and lower sheets on the same horizontal lines have the same zenith distance north and south from the observation spot, the black symbols showing through from the lower sheet representing stars of south zenith distance, and the red of upper sheet, stars of north zenith distance. The vertical lines show the times of transit of the several stars. Hence the working method:—The approximate latitude of the observation spot and the hours of right ascension during which it is desired to observe being known, those sets are selected which include the desired hours of right ascension. Place the upper sheet of each set on the lower with the vertical or right ascension lines corresponding and bring into coincidence the horizontal or declination line of both sheets for that particular declination which is equal to the latitude. Then select those pairs of south and north zenith stars within the limits of right ascension desired whose zenith distance is not too great, whose difference of zenith distance is not more than one-half the run of the micrometer and which have a suitable interval between transits. Having taken out the stars for limits of time allowed, there will probably be found long intervals in places between the different pairs. These may be filled in by extending the limit allowed for the difference of zenith distance to the full run of the micrometer. The pairs having thus been selected, the stars are identified in the Star Catalogue and their mean places in right ascension and declination are reduced from 1910.0 to the beginning of the year, which is sufficiently close for the purposes of the observing list.

THE CATALOGUES

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....6184	6.0	0 00 01.0	+3.09	+66 39 53.40	+20.082	−0.00009	+0.036
A.....7793	6.4	00 08.8	+3.07	+34 09 20	+20.05	0.000	+0.04
B.....6186	6.9	00 16.1	+3.08	+58 01 51.31	+20.021	−0.00009	−0.025
A.....7794	6.4	00 17.7	+3.07	+26 08 52	+20.05	0.000	.....
B.....6187	6.0	00 26.7	+3.08	+60 48 46.58	+20.058	−0.00009	+0.012
B.....6188	6.6	00 26.9	+3.07	− 1 00 09.99	+19.999	−0.00009	−0.047
Green....6221	7.0	00 38.9	+3.09	+68 22 54.62	+20.056	−0.00010	+0.005
B.....2	5.9	01 04.6	+3.08	+12 53 43.31	+20.048	−0.00011	+0.002
B.....3	6.2	01 32.8	+3.12	+57 56 05.73	+20.084	−0.00012	+0.038
B.....5	5.6	01 45.4	+3.09	+63 41 42.72	+20.051	−0.00013	+0.005
B.....6	6.4	01 56.3	+3.11	+28 31 29.68	+19.869	−0.00013	−0.176
G.....12	6.7	02 59.3	+3.09	+39 38 51.16	+20.049	−0.00015	.....
Gr.....2	6.3	03 07.5	+3.07	− 3 02 58.72	+20.076	−0.00015	+0.026
B.....9	6.6	03 35.6	+3.07	− 2 56 55.27	+20.038	−0.00016	−0.005
B.J.....1	2.1	03 44.0	+3.10	+28 35 36.79	+19.882	−0.00016	−0.161
A.....16	6.5	04 03.0	+3.09	+36 07 48	+20.05	0.000	.....
A.....17	6.4	04 12.9	+3.08	+24 57 36	+20.05	0.000	.....
B.....11	6.4	04 20.9	+3.24	+79 12 52.46	+20.013	−0.00018	−0.029
B.J.....2	2.2	04 22.1	+3.18	+58 39 12.08	+19.863	−0.00018	−0.180
B.....13	5.8	04 23.7	+3.09	+17 42 41.47	+20.009	−0.00017	−0.033
Green....9286	7.0	04 30.3	+3.13	+64 34 08.43	+20.047	−0.00018	.....
B.....18	5.7	05 24.6	+3.08	+10 38 41.25	+20.039	−0.00019	−0.001
B.J.....4	5.2	05 38.3	+3.11	+45 34 17.02	+20.037	−0.00020	−0.003
G.....34	6.7	05 46.3	+3.12	+56 39 52.06	+20.045	−0.00020	.....
A.....32	6.2	07 16.2	+3.12	+47 39 06	+20.04	0.000	.....
G.....46	7.0	07 51.8	+3.12	+44 05 24.63	+20.040	−0.00024	.....
B.J.....7	2.7	08 36.0	+3.09	+14 40 59.42	+20.018	−0.00025	−0.014
G.....53	6.3	08 44.4	+3.10	+26 29 16.15	+20.037	−0.00026	.....
B.....29	5.9	08 50.1	+3.11	+40 32 18.29	+19.881	−0.00026	−0.150
A.....39	6.4	09 21.8	+3.11	+32 42 22	+20.04	0.000	.....
G.....58	6.7	09 51.1	+3.12	+40 31 53.32	+20.033	−0.00028	.....
B.....31	5.0	09 56.6	+3.10	+19 42 21.49	+20.016	−0.00028	−0.011
A.....44	6.5	10 16.3	+3.10	+21 47 03	+20.03	0.000	.....
B.....35	6.1	10 20.6	+3.09	+ 8 19 16.16	+20.001	−0.00029	−0.024
A.....47	6.4	10 25.9	+3.10	+31 02 08	+20.03	0.000	.....
G.....63	5.9	10 30.3	+3.10	+26 47 00.87	+20.031	−0.00029	.....
G.....64	6.6	10 34.6	+3.13	+43 42 10.46	+20.030	−0.00030	.....
B.J.....8	6.5	11 06.6	+3.35	+76 27 02.43	+20.024	−0.00032	+0.002
A.....51	6.4	11 37.7	+3.13	+43 05 44	+20.03	0.000	.....
Gr.....12	6.2	11 56.5	+3.08	+ 7 44 25.12	+20.015	−0.00032	−0.009
B.....41	6.0	12 06.6	+3.20	+61 01 59.30	+20.016	−0.00033	−0.002
B.....43	4.5	12 23.2	+3.13	+38 10 54.87	+19.997	−0.00033	−0.020
B.....44	6.0	12 23.9	+3.15	+47 26 50.38	+20.005	−0.00033	−0.012
B.....45	6.8	12 46.3	+3.09	+ 8 22 28.51	+20.100	−0.00034	+0.085
B.....46	6.2	12 56.4	+3.16	+50 55 59.33	+20.013	−0.00034	−0.001
B.....49	6.5	13 10.3	+3.08	+ 1 11 17.98	+20.022	−0.00034	+0.009
A.....60	6.4	13 33.4	+3.74	+ 1 11 16	+19.97	0.000	−0.05
A.E.σAndromed.	4.5	13 37.4	+3.13	+36 17 10.60	+19.964	−0.00036	−0.044
A.....62	6.2	13 39.4	+3.09	+10 42 26	+20.02	0.000	.....
B.....51	6.0	0 13 56.1	+3.13	+31 01 02.91	+20.005	−0.00036	−0.003

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....52	6.1	0 13 57.3	+3.15	+43 17 28.76	+20.004	−0.00036	−0.004
G.....83	6.2	14 57.5	+3.15	+40 13 48.72	+20.009	−0.00039	.....
B.....54	7.0	15 17.1	+3.10	+15 45 05.33	+19.996	−0.00039	−0.005
G.....84	7.0	15 18.0	+3.17	+48 21 58.97	+20.007	−0.00039	.....
A.....70	6.2	15 42.1	+3.13	+30 26 11	+20.01	0.000	.....
N.A.d.Piscium	5.6	15 58.0	+3.09	+ 7 41 25.78	+20.014	−0.00040	+0.016
A.....72	5.9	16 03.0	+3.13	+32 24 43	+20.01	0.000	.....
B.....57	5.3	16 22.6	+3.15	+37 28 12.13	+19.951	−0.00041	−0.044
Green...6905	6.7	16 41.7	+3.30	+67 19 25.22	+19.960	−0.00044	−0.038
Gr.....15	6.4	17 46.0	+3.10	+12 58 58.52	+20.026	−0.00043	+0.035
B.....66	7.0	19 17.8	+3.18	+43 45 56.80	+19.960	−0.00047	−0.015
B.....67	5.6	19 24.4	+3.22	+51 31 16.11	+19.969	−0.00048	−0.005
B.....68	5.6	19 49.1	+3.29	+61 19 56.93	+19.979	−0.00050	+0.008
Gr.....16	6.3	19 53.7	+3.06	− 2 43 01.24	+19.924	−0.00047	−0.051
B.....70	6.9	19 58.5	+3.10	+13 48 59.82	+19.960	−0.00048	−0.010
B.....71	5.9	20 14.0	+3.23	+52 32 53.41	+19.965	−0.00050	−0.003
Green...4473	6.9	20 38.1	+3.43	+71 18 30.62	+19.976	−0.00054	+0.006
N.A. 44 Pisc.	6.0	20 47.3	+3.07	+ 1 26 28.62	+19.940	−0.00049	−0.023
B.....75	7.0	21 03.4	+3.09	+ 7 11 36.52	+19.907	−0.00050	−0.054
Green...1432	6.5	21 19.7	+3.76	+79 33 13.90	+19.954	−0.00060	−0.010
B.....79	6.7	22 00.4	+3.08	− 0 32 52.84	+19.956	−0.00052	+0.002
G.....118	6.8	22 20.3	+3.22	+49 29 16.36	+19.957	−0.00054	.....
B.....80	6.8	23 17.3	+3.12	+19 00 59.39	+19.929	−0.00055	−0.014
B.....81	5.4	23 21.3	+3.12	+17 23 40.20	+19.958	−0.00055	+0.016
B.....82	5.3	23 23.2	+3.21	+43 53 48.08	+19.923	−0.00056	−0.018
B.....84	6.5	23 32.0	+3.11	+15 56 50.57	+19.925	−0.00055	−0.016
Gr.....19	6.0	23 40.8	+3.10	+ 9 41 48.87	+19.771	−0.00055	−0.174
A.....98	6.5	24 09.7	+3.17	+36 24 08	+19.93	−0.001	.....
B.....86	6.7	25 07.1	+3.78	+76 31 22.98	+19.909	−0.00070	−0.016
B.....87	6.0	25 18.2	+3.33	+59 28 48.10	+19.890	−0.00062	−0.034
B.....89	5.3	25 22.2	+3.16	+29 15 19.75	+19.870	−0.00059	−0.053
B.J.....13	6.1	25 26.7	+3.06	− 4 27 16.44	+19.914	−0.00058	−0.008
B.....95	6.3	26 14.1	+3.42	+66 01 21.15	+19.911	−0.00065	−0.004
G.....136	6.7	26 21.8	+3.22	+43 26 57.51	+19.919	−0.00062	.....
A.....109	6.0	26 38.5	+3.17	+33 05 06	+19.91	−0.001	.....
B.....96	5.9	26 45.2	+3.27	+52 20 33.70	+19.882	−0.00063	−0.028
B.....97	4.9	26 48.0	+3.29	+54 01 31.52	+19.898	−0.00064	−0.012
Gr.....21	5.7	27 45.1	+3.09	+ 6 27 30.90	+19.927	−0.00063	+0.022
B.....104	5.5	27 52.2	+3.14	+19 47 54.96	+19.846	−0.00064	−0.052
B.J.....16	4.2	27 52.5	+3.38	+62 26 06.62	+19.901	−0.00068	+0.003
Green...4974	6.4	27 56.3	+3.54	+70 29 06.79	+19.889	−0.00071	−0.014
B.....106	6.7	28 04.1	+3.16	+27 46 59.92	+19.902	−0.00065	+0.006
A.....117	6.1	28 10.1	+3.30	+54 24 00	+19.90	−0.001	.....
Green...7662	6.4	29 09.7	+3.46	+66 15 14.16	+19.883	−0.00072	−0.007
G.....162	7.0	29 13.4	+3.30	+53 34 13.78	+19.889	−0.00070	.....
G.....167	6.4	30 15.3	+3.11	+12 52 35.02	+19.877	−0.00068	.....
A.E. 13 Ceti.	5.2	30 36.9	+3.09	− 4 05 17.27	+19.850	−0.00069	−0.018
Gr.....24	5.9	30 55.5	+3.08	− 1 00 00.16	+19.810	−0.00069	−0.059
B.....118	5.3	31 07.3	+3.32	+53 40 22.24	+19.870	−0.00074	+0.007
A.....125	6.5	0 31 15.3	+3.11	+12 43 04	+19.86	−0.001	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....119	5.9	0 31 19.9	+3.39	+59 49 50.16	+19.858	−0.00075	−0.001
G.....175	6.1	31 34.3	+3.17	+26 45 33.68	+19.961	−0.00072	.....
B.....121	5.5	31 52.7	+3.25	+43 59 31.63	+19.879	−0.00074	+0.026
B.J.....17	3.8	31 57.0	+3.32	+53 24 06.06	+19.844	−0.00075	−0.007
B.J.....18	4.2	32 04.2	+3.20	+33 13 26.37	+19.850	−0.00073	0.000
B.....124	6.0	32 05.8	+3.12	+14 44 10.77	+19.822	−0.00072	−0.028
A.....134	6.4	32 22.7	+3.15	+23 31 14	+19.85	−0.001	.....
B.....125	5.7	32 31.8	+3.20	+34 54 16.53	+19.864	−0.00074	+0.019
B.....128	6.7	32 52.4	+3.09	+ 2 38 29.16	+19.777	−0.00072	−0.063
Green....928	6.4	32 56.2	+4.39	+81 59 49.48	+19.928	−0.00099	+0.084
B.J.....19	4.3	33 47.8	+3.16	+28 49 23.45	+19.577	−0.00076	−0.251
Green...2403	7.0	34 01.6	+3.89	+76 22 37.66	+19.831	−0.00092	.....
B.....131	5.8	34 11.1	+3.30	+48 51 35.77	+19.810	−0.00080	−0.013
B.J.....20	3.2	34 30.7	+3.20	+30 22 07.08	+19.736	−0.00078	−0.084
B.....133	6.1	34 40.7	+3.12	+20 45 54.06	+19.442	−0.00076	−0.375
B.....134	5.6	35 11.2	+3.15	+20 56 40.67	+19.772	−0.00079	−0.038
B.J.....21	(2.2)	35 23.5	+3.38	+56 02 37.94	+19.778	−0.00084	−0.029
B.....137	6.3	36 07.4	+3.05	− 4 50 44.43	+19.787	−0.00078	−0.010
B.....138	5.5	36 14.2	+3.24	+38 57 52.86	+19.792	−0.00083	−0.004
Green....8441	5.9	36 41.1	+3.54	+65 39 14.54	+19.777	−0.00091	−0.018
B.....140	6.3	36 49.4	+3.18	+24 08 07.92	+19.764	−0.00083	−0.024
Green...4983	7.0	37 02.3	+3.70	+70 52 20.66	+19.775	−0.00095	−0.016
B.....141	5.0	37 02.4	+3.33	+50 01 08.21	+19.777	−0.00086	−0.007
G.....216	6.9	37 07.3	+3.25	+40 11 46.53	+19.759	−0.00085	−0.030
A.....155	6.5	37 19.9	+3.42	+58 15 37	+19.77	−0.001	−0.01
G.....219	7.0	37 34.5	+3.35	+51 50 37.85	+19.783	−0.00088	.....
B.....145	5.2	38 28.9	+3.31	+46 31 56.94	+19.737	−0.00089	−0.027
B.....149	5.8	39 26.0	+3.32	+47 22 15.36	+19.759	−0.00091	+0.009
B.J.....24	5.8	39 41.1	+3.90	+74 29 46.37	+19.723	−0.00106	−0.023
B.J.....25	4.7	39 42.3	+3.33	+47 47 30.81	+19.738	−0.00092	−0.008
Green...7669	6.9	39 16.4	+3.60	+66 40 01.23	+19.758	−0.00098	.....
B.....154	5.5	40 09.1	+3.40	+54 43 43.60	+19.730	−0.00095	−0.009
Green...6237	6.4	40 59.0	+3.69	+68 49 59.05	+19.732	−0.00104	.....
G.....237	6.6	41 05.7	+3.41	+54 48 48.42	+19.730	−0.00097	.....
A.....178	6.3	41 11.5	+3.30	+44 22 12	+19.73	−0.001	.....
A.....180	6.5	41 27.3	+3.47	+59 04 58	+19.72	−0.001	.....
Green...3153	5.4	41 44.4	+3.94	+74 21 22.05	+19.697	−0.00112	−0.023
B.....161	5.8	41 50.2	+3.13	+14 59 04.81	+19.661	−0.00091	−0.052
Green...4007	6.0	42 15.5	+3.86	+72 10 58.03	+19.712	−0.00112	0.000
Gr.....33	5.7	42 19.7	+3.12	+11 28 59.16	+19.698	−0.00092	−0.013
B.....163	6.3	42 28.1	+3.16	+19 05 12.88	+19.712	−0.00093	+0.009
B.J.....27	4.1	42 33.9	+3.17	+23 46 39.65	+19.623	−0.00094	−0.079
B.....165	6.3	42 44.3	+3.10	+ 6 14 59.26	+19.689	−0.00092	−0.010
B.....167	6.8	43 08.3	+3.18	+20 26 01.30	+19.702	−0.00095	+0.010
Gr.....36	6.1	43 37.1	+3.11	+ 6 48 30.82	+19.694	−0.00094	+0.004
A.E. η Cass.	3.6	43 38.9	+3.61	+57 20 21.12	+19.208	−0.00112	−0.523
B.....171	6.0	43 39.6	+3.14	+ 4 49 04.58	+18.539	−0.00097	−1.144
B.....172	5.0	43 43.6	+3.38	+50 28 38.54	+19.671	−0.00102	−0.011
B.J.....28	4.4	44 00.7	+3.11	+ 7 05 43.34	+19.632	−0.00095	−0.046
B.....174	5.3	0 44 14.7	+3.15	+16 27 17.33	+19.470	−0.00096	−0.203

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		h m s	s	° ′ ″	″	″	″
Green...4991	7.0	0 44 16.2	+3.80	+70 17 02.24	+19.675	−0.00115	−0.004
Green...2047	6.8	44 23.7	+4.25	+77 27 48.89	+19.676	−0.00128	−0.001
G.....269	6.9	44 34.4	+3.35	+47 16 26.45	+19.674	−0.00103	.....
B.....175	4.6	44 50.7	+3.30	+40 35 19.85	+19.643	−0.00102	−0.021
B.....178	5.7	45 02.9	+3.21	+27 13 13.42	+19.653	−0.00100	−0.007
B.J.....29	5.7	45 15.4	+3.61	+63 45 27.76	+19.652	−0.00112	−0.005
B.....180	6.4	45 16.4	+3.34	+44 30 42.19	+19.653	−0.00104	−0.003
B.....183	6.6	45 48.0	+3.41	+51 01 04.73	+19.645	−0.00106	−0.002
A.....208	6.1	45 53.1	+3.55	+61 18 56	+19.65	−0.001	.....
Green....521	5.6	46 23.2	+5.36	+83 13 08.43	+19.622	−0.00166	−0.020
B.....186	6.4	46 25.3	+3.40	+51 04 54.94	+19.624	−0.00108	−0.012
Gr.....40	6.5	46 40.2	+3.09	+ 2 53 49.12	+19.543	−0.00099	−0.094
G.....282	7.0	46 51.9	+3.13	+12 17 44.23	+19.634	−0.00101	.....
B.....189	5.1	47 41.3	+3.55	+60 37 50.51	+19.788	−0.00116	+0.174
G.....292	6.5	47 53.8	+3.29	+39 45 18.65	+19.664	−0.00108	+0.049
N.A. 20 Ceti.	4.9	48 24.4	+3.06	− 1 37 57.62	+19.597	−0.00102	−0.003
A.....217	6.2	48 31.4	+3.28	+36 55 51	+19.60	−0.001	.....
B.....192	6.5	48 35.6	+3.44	+52 12 03.99	+19.571	−0.00114	−0.026
B.....193	5.1	49 39.1	+3.54	+58 29 08.27	+19.533	−0.00120	−0.044
B.....195	6.0	49 49.2	+3.17	+18 42 01.41	+19.561	−0.00108	−0.013
A.....224	6.3	49 58.1	+3.39	+48 11 28	+19.58	−0.001	.....
B.....197	5.6	50 08.8	+3.21	+23 08 27.74	+19.535	−0.00110	−0.033
A.....227	6.4	50 25.4	+3.20	+24 04 11	+19.57	−0.001	.....
A.....228	6.4	50 51.5	+3.53	+57 31 25	+19.56	−0.001	.....
Green...6250	6.4	51 05.3	+3.83	+68 17 21.21	+19.516	−0.00132	−0.040
B.....198	6.2	51 07.9	+3.22	+26 43 17.36	+19.555	−0.00112	+0.006
B.J.....32	2.0	51 16.0	+3.59	+60 13 46.36	+19.542	−0.00125	−0.004
B.....200	4.9	51 17.8	+3.55	+58 41 41.86	+19.504	−0.00123	−0.042
B.....201	5.8	51 21.2	+3.59	+59 52 32.72	+19.545	−0.00125	0.000
G.....319	6.5	51 25.6	+3.14	+13 27 52.75	+19.548	−0.00110	.....
G.....318	6.7	51 28.2	+3.35	+42 29 30.28	+19.548	−0.00117	.....
B.J.....33	3.9	51 45.2	+3.32	+38 00 40.92	+19.573	−0.00117	+0.036
Green...5558	6.8	52 16.1	+3.91	+70 00 35.10	+19.535	−0.00137	+0.003
B.....206	4.6	52 23.8	+3.20	+22 55 54.62	+19.483	−0.00114	−0.042
G.....330	6.2	52 33.7	+3.38	+45 21 09.78	+19.526	−0.00120	.....
Green...8456	6.0	52 48.6	+3.76	+65 51 57.10	+19.515	−0.00134	−0.007
Green...1166	6.6	52 57.4	+4.82	+80 03 33.10	+19.518	−0.00169	.....
B.....209	5.7	52 57.7	+3.24	+28 30 20.69	+19.501	−0.00116	−0.012
B.....210	6.5	53 11.0	+3.14	+13 12 33.68	+19.490	−0.00114	−0.019
G.....338	6.4	53 18.0	+3.28	+33 28 00.29	+19.512	−0.00119	.....
G.....339	6.6	53 35.3	+3.40	+46 33 02.58	+19.506	−0.00123	.....
Green....374	6.7	53 50.4	+6.14	+84 07 21.38	+19.492	−0.00217	−0.009
G.....343	7.0	54 24.6	+3.33	+39 40 12.25	+19.489	−0.00123	.....
Green...4996	6.5	54 27.5	+3.98	+70 29 51.51	+19.486	−0.00145	−0.002
B.....216	6.4	54 57.6	+3.38	+44 13 42.72	+19.454	−0.00125	−0.019
Gr.....46	6.3	55 09.7	+3.11	+ 5 59 52.04	+19.474	−0.00116	.....
Green...6253	6.7	55 34.1	+3.90	+68 52 25.26	+19.465	−0.00145	.....
B.J.43H.Ceph.	4.3	56 16.2	+7.54	+85 46 29.12	+19.444	−0.00279	−0.001
G.....372	6.2	57 50.2	+3.43	+46 53 34.42	+19.416	−0.00133	.....
B.....223	6.1	0 57 50.5	+3.36	+40 51 41.34	+19.401	−0.00130	−0.010

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		h m s	s	° ′ ″	″	″	″
B.....224	5.6	0 57 53.1	+3.28	+31 19 16.15	+19.379	−0.00128	−0.031
A.....253	6.2	58 03.9	+3.66	+60 35 27	+19.42	−0.001	.....
G.....377	6.9	58 08.1	+3.62	+58 25 34.14	+19.409	−0.00141	.....
B.....219	6.8	58 16.1	+16.46	+88 32 29.73	+19.385	−0.00619	−0.017
B.J.....36	4.2	58 16.2	+3.11	+ 7 24 20.84	+19.432	−0.00122	+0.030
Green...3568	6.8	58 20.6	+4.24	+73 53 20.58	+19.402	−0.00164	−0.003
A.....259	6.2	58 44.6	+3.50	+52 01 15	+19.30	−0.001	−0.10
A.....258	6.0	58 45.7	+3.68	+61 05 52	+19.40	−0.001	.....
B.J.....37	6.2	59 11.1	+3.09	+ 0 53 04.40	+19.342	−0.00123	−0.039
G.....394	6.6	59 30.5	+3.49	+50 31 37.73	+19.379	−0.00139	.....
A.....263	6.4	59 32.1	+3.26	+29 10 47	+19.38	−0.001	.....
B.....231	6.9	0 59 32.5	+3.36	+39 30 31.74	+19.353	−0.00134	−0.021
Gr.....51	6.2	1 00 12.8	+3.11	+ 5 10 26.25	+19.360	−0.00126	−0.004
N.A. 72 Pisc.	5.6	00 20.2	+3.16	+14 27 44.06	+19.409	−0.00128	+0.054
B.....232	6.6	00 36.2	+9.13	+86 40 00.94	+19.332	−0.00359	−0.017
Green...5000	6.6	00 42.8	+4.08	+70 26 59.28	+19.347	−0.00164	−0.005
B.....235	5.5	00 51.3	+3.21	+20 59 28.96	+19.327	−0.00131	−0.017
B.....236	5.8	00 52.0	+3.21	+20 59 00.75	+19.318	−0.00131	−0.025
Gr.....52	6.8	01 09.8	+3.10	+ 4 25 45.50	+19.222	−0.00127	−0.119
B.....241	6.8	01 13.9	+3.29	+31 42 00.50	+19.316	−0.00135	−0.019
Green...1439	6.3	01 29.0	+4.96	+79 31 53.93	+19.278	−0.00200	−0.056
A.....274	6.5	01 31.3	+3.60	+56 27 26	+19.34	−0.001	.....
G.....409	6.9	01 47.9	+3.55	+53 01 00.62	+19.327	−0.00146	.....
Gr.....53	6.2	01 49.4	+3.15	+12 28 25.89	+19.362	−0.00131	+0.036
G.....411	6.8	01 58.2	+3.48	+49 04 27.94	+19.323	−0.00144	.....
A.E. μ Cass.	5.3	02 16.4	+3.97	+54 28 45.49	+17.756	−0.00187	−1.558
G.....418	6.6	02 40.5	+3.39	+41 01 57.39	+19.306	−0.00142	.....
B.....246	5.1	02 50.5	+3.43	+43 27 46.05	+19.240	−0.00144	−0.057
B.....247	6.0	03 02.2	+3.65	+57 46 59.25	+19.289	−0.00153	−0.004
B.....248	6.4	03 02.3	+3.31	+31 31 54.72	+19.245	−0.00140	−0.047
B.....249	5.7	03 07.3	+3.21	+20 15 38.66	+19.198	−0.00136	−0.092
B.....251	6.6	03 21.1	+3.09	+ 1 31 22.13	+18.860	−0.00131	−0.425
Gr.....55	6.9	03 39.4	+3.13	+ 9 25 39.56	+19.331	−0.00133	+0.048
B.....252	5.7	03 43.9	+3.09	+ 5 10 25.32	+19.095	−0.00131	−0.181
B.....257	4.2	04 16.4	+3.47	+46 45 43.60	+19.256	−0.00148	−0.007
B.J.....41	5.7	04 27.6	+5.05	+79 11 42.71	+19.268	−0.00214	+0.009
Green...6263	5.3	04 33.2	+4.01	+68 17 59.99	+19.238	−0.00171	−0.023
B.J.....42	2.1	04 41.3	+3.35	+35 08 37.09	+19.140	−0.00144	−0.112
Green...6929	6.7	04 45.5	+4.00	+67 18 00.68	+19.282	−0.00171	+0.025
B.....261	5.8	05 00.3	+3.20	+19 10 42.30	+19.246	−0.00139	+0.001
B.....262	5.9	05 11.8	+3.39	+41 36 10.83	+19.194	−0.00146	−0.046
G.....437	6.9	05 25.0	+3.18	+15 11 42.49	+19.241	−0.00139	.....
A.....300	5.9	05 26.3	+3.25	+24 58 54	+19.13	−0.001	−0.11
B.....263	5.6	05 35.9	+3.84	+63 43 27.36	+19.216	−0.00167	−0.014
B.....264	4.5	05 36.9	+3.63	+54 40 17.02	+19.212	−0.00159	−0.018
Green...9319	5.5	05 49.0	+3.87	+64 32 25.46	+19.211	−0.00166	−0.019
Gr.....60	6.2	05 55.6	+3.08	+ 1 58 00.78	+19.224	−0.00136	−0.004
B.....268	6.0	06 06.5	+3.36	+37 14 43.55	+19.214	−0.00147	−0.003
B.....269	5.3	06 08.7	+3.30	+30 56 46.34	+19.203	−0.00145	−0.014
B.....270	4.8	1 06 36.7	+3.22	+20 33 23.51	+19.211	−0.00143	+0.006

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.J.....43	4.3	1 06 42.0	+3.30	+29 36 43.04	+19.162	−0.00146	−0.041
B.....273	6.5	07 08.8	+3.05	− 2 43 44.40	+19.166	−0.00136	−0.026
B.....274	6.7	07 21.1	+3.46	+44 51 32.43	+19.210	−0.00154	+0.023
B.....275	6.8	07 53.6	+3.07	+ 1 59 46.49	+19.068	−0.00139	−0.105
A.....311	6.4	08 01.8	+3.29	+29 35 15	+19.18	−0.001	.....
B.....276	6.4	08 30.8	+5.16	+79 25 56.42	+19.219	−0.00229	+0.062
B.....281	4.7	08 51.5	+3.25	+24 06 25.44	+19.107	−0.00148	−0.041
N.A. ζ^1 Pisc.	5.4	09 01.7	+3.13	+ 7 05 58.76	+19.091	−0.00144	−0.052
B.....283	6.6	09 03.0	+3.13	+ 7 06 08.99	+19.093	−0.00144	−0.050
A.....317	6.5	09 07.9	+3.28	+28 03 16	+19.14	−0.002	.....
Gr.....63	5.9	09 20.6	+3.18	+15 39 26.02	+19.122	−0.00146	−0.018
Green...4489	6.4	09 42.8	+4.26	+71 16 04.41	+19.148	−0.00194	+0.017
Gr.....64	6.2	10 01.4	+3.12	+ 6 31 09.15	+19.102	−0.00145	−0.021
B.....287	6.0	10 13.4	+3.06	− 1 27 18.41	+19.331	−0.00143	+0.219
Green...1170	6.7	10 58.3	+5.49	+80 25 11.30	+19.097	−0.00252	.....
G.....475	6.8	11 05.8	+3.52	+47 36 25.78	+19.095	−0.00165	.....
A.....324	6.2	11 17.4	+3.33	+32 38 27	+19.09	−0.002	.....
G.....476	6.9	11 18.6	+3.45	+42 27 54.34	+19.089	−0.00162	.....
G.....478	6.8	11 50.4	+3.48	+44 25 41.48	+19.075	−0.00165	.....
B.....290	5.7	12 02.1	+3.04	− 2 58 26.04	+19.003	−0.00145	−0.061
Green...6933	6.7	12 08.3	+4.06	+67 20 31.98	+19.066	−0.00191	.....
A.....327	6.5	12 24.3	+3.32	+31 16 12	+19.06	−0.002	.....
Green...2057	6.4	12 47.9	+4.89	+77 05 42.02	+19.135	−0.00231	+0.087
G.....483	6.3	12 51.4	+3.52	+46 56 43.50	+19.047	−0.00169	.....
A.E. *f* Piscium	5.3	13 09.3	+3.09	+ 3 08 26.63	+19.008	−0.00149	−0.023
G.....488	7.0	14 11.7	+3.75	+57 44 06.51	+19.010	−0.00182	.....
B.....298	5.2	14 24.7	+3.75	+57 45 31.61	+19.004	−0.00183	+0.005
B.J.....45	4.6	14 31.0	+3.29	+26 47 28.37	+18.985	−0.00161	−0.011
Green...2785	6.4	14 39.3	+4.78	+75 46 03.17	+18.968	−0.00232	−0.029
Green....9328	6.3	15 03.9	+3.97	+64 11 10.93	+18.937	−0.00195	−0.049
B.....302	6.7	15 12.1	+3.07	− 0 58 52.86	+18.968	−0.00152	−0.009
Green...1754	6.2	15 48.9	+5.16	+78 15 17.53	+18.963	−0.00253	−0.001
A.....337	6.4	16 00.3	+3.04	− 3 43 09	+18.96	−0.002	.....
B.....303	5.5	16 08.6	+3.31	+28 16 05.20	+18.874	−0.00165	−0.076
G.....500	6.9	16 26.9	+3.59	+49 39 02.08	+18.947	−0.00180	.....
Gr.....66	6.8	16 34.2	+3.16	+11 03 53.63	+18.950	−0.00159	+0.008
B.....304	5.1	17 02.2	+3.52	+45 03 26.43	+18.928	−0.00177	+0.004
B.....305	6.9	17 58.5	+3.07	− 0 55 12.56	+18.885	−0.00157	−0.012
B.....306	6.6	17 58.8	+3.09	+ 1 15 23.88	+18.849	−0.00158	−0.047
G.....506	7.0	18 03.8	+3.11	+ 4 16 04.59	+18.899	−0.00160	.....
G.....507	7.0	18 08.4	+3.16	+10 53 51.11	+18.897	−0.00162	.....
A.....347	6.4	18 30.4	+3.37	+33 46 17	+18.88	−0.002	.....
B.....307	5.7	18 31.4	+3.42	+37 14 43.59	+18.867	−0.00175	−0.014
A.....349	6.0	18 33.1	+3.24	+19 59 57	+18.88	−0.002	.....
Green...5006	6.5	19 08.4	+4.36	+70 30 40.18	+18.861	−0.00223	−0.007
B.J.....46	5.0	19 33.6	+4.19	+67 39 38.15	+18.883	−0.00216	+0.033
B.J.....48	2.7	19 55.1	+3.90	+59 46 04.18	+18.797	−0.00204	−0.043
A.....355	6.4	20 14.3	+3.05	− 3 19 02	+18.83	−0.002	.....
A.....358	6.5	20 40.5	+3.27	+23 02 37	+18.82	−0.002	.....
G.....519	6.3	1 21 00.8	+3.39	+34 06 51.65	+18.812	−0.00179	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....318	5.4	1 21 24.0	+3.23	+18 42 15.17	+18.815	−0.00171	+0.020
G.....520	6.9	21 24.3	+3.51	+43 13 30.76	+18.800	−0.00186	.....
B.....319	5.7	21 49.9	+3.23	+18 46 27.39	+18.725	−0.00173	−0.057
B.....320	6.8	21 50.9	+3.07	− 0 51 59.29	+18.760	−0.00164	−0.022
A.....366	6.4	21 58.7	+3.39	+33 54 38	+18.78	−0.002	.....
B.....321	5.1	22 15.8	+3.57	+44 56 32.69	+18.672	−0.00192	−0.096
G.....525	6.5	22 33.5	+3.47	+39 52 08.90	+18.764	−0.00186	.....
G.....527	6.8	22 53.7	+3.52	+43 34 58.71	+18.755	−0.00190	.....
G.....531	7.0	23 22.7	+3.88	+59 34 11.20	+18.740	−0.00209	.....
B.....326	7.0	23 33.6	+3.22	+16 36 49.46	+18.695	−0.00176	−0.034
Green...9332	7.0	23 35.2	+4.08	+64 42 19.23	+18.733	−0.00220	.....
Gr.....71	6.4	23 39.7	+3.14	+ 7 29 43.30	+18.730	−0.00172	0.000
B.....328	6.8	24 21.1	+3.13	+ 6 49 47.02	+18.653	−0.00172	−0.051
A. E. 38 Cass.	6.0	24 30.9	+4.41	+69 48 06.61	+18.626	−0.00241	−0.066
Green...8480	6.2	24 34.1	+4.14	+65 38 00.61	+18.702	−0.00226	.....
B.....330	5.4	24 41.9	+3.58	+46 32 35.37	+18.648	−0.00197	−0.044
A.....378	6.2	25 01.0	+3.23	+17 53 25	+18.68	−0.002	.....
G.....542	7.0	25 12.3	+4.02	+62 52 59.65	+18.682	−0.00221	.....
B.....332	5.2	25 28.1	+3.14	+ 5 40 48.34	+18.625	−0.00175	−0.044
Green...5577	6.9	25 52.1	+4.39	+69 33 21.62	+18.619	−0.00242	−0.041
Green...6943	7.0	25 52.2	+4.30	+67 56 47.85	+18.611	−0.00238	−0.050
G.....547	6.9	26 35.3	+4.05	+63 07 49.83	+18.638	−0.00226	.....
B.J.....50	3.6	26 39.9	+3.21	+14 52 55.45	+18.623	−0.00180	−0.007
B.J. α Urs.Min.	2.0	26 55.9	+27.36	+88 49 33.46	+18.623	−0.01494	+0.002
A.....384	5.8	27 34.7	+3.86	+57 51 53	+18.61	−0.002	.....
G.....550	6.7	27 38.1	+3.43	+35 22 51.86	+18.604	−0.00195	.....
B.....338	4.9	28 02.4	+3.89	+58 46 13.77	+18.569	−0.00221	−0.016
Green...6277	6.7	28 03.0	+4.27	+68 29 00.57	+18.706	−0.00241	+0.117
B.....340	6.1	29 04.6	+3.45	+36 46 33.56	+18.535	−0.00198	−0.016
G.....556	5.6	29 44.6	+3.75	+52 53 05.84	+18.533	−0.00217	.....
Green...6947	7.0	29 52.5	+4.29	+67 09 17.56	+18.530	−0.00247	.....
B.....342	6.2	29 56.7	+3.24	+18 00 03.64	+18.441	−0.00189	−0.081
Green...3577	6.4	29 57.8	+4.85	+73 50 28.10	+18.506	−0.00278	−0.020
A.....397	6.5	30 33.3	+3.51	+40 36 59	+18.51	−0.002	.....
G.....563	7.0	30 54.9	+3.62	+46 51 59.10	+18.494	−0.00212	.....
B.....346	6.4	30 56.7	+3.65	+48 15 48.48	+18.476	−0.00214	−0.013
Gr.....75	6.2	30 57.6	+3.20	+14 12 05.12	+18.491	−0.00188	−0.001
B.....348	6.2	31 02.4	+3.24	+16 58 24.09	+18.508	−0.00191	+0.023
B.J.....51	5.5	31 18.1	+4.72	+72 34 54.16	+18.470	−0.00275	−0.006
Green...9339	6.6	31 29.5	+4.15	+64 16 48.47	+18.475	−0.00243	.....
A.E. υ Androm.	4.2	31 30.6	+3.51	+40 57 20.28	+18.092	−0.00205	−0.378
G.....572	6.9	32 00.4	+3.14	+ 7 22 18.47	+18.457	−0.00187	.....
G.....571	6.6	32 04.5	+4.05	+61 53 36.24	+18.455	−0.00239	.....
B.....355	5.9	32 14.0	+3.89	+57 31 09.49	+18.440	−0.00230	−0.004
A.E. π Pisc.	5.6	32 19.5	+3.18	+11 40 53.06	+18.476	−0.00189	+0.037
B.J.....52	3.6	32 27.7	+3.67	+48 10 21.08	+18.324	−0.00218	−0.113
Green...2061	6.6	32 29.6	+5.45	+77 30 43.09	+18.432	−0.00320	−0.008
A.....411	6.5	33 06.4	+3.60	+44 56 30	+18.42	−0.002	.....
B.....360	5.2	33 56.8	+3.58	+43 55 42.77	+18.395	−0.00215	+0.009
B.....362	7.0	1 34 25.9	+3.21	+13 49 44.08	+18.331	−0.00196	−0.037

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....582	6.8	1 34 29.3	+3.79	+53 24 42.76	+18.371	−0.00229	.....
Gr.....78	6.1	34 49.3	+3.23	+15 56 58.08	+18.351	−0.00197	−0.008
B.....368	5.9	35 15.6	+3.59	+42 50 33.57	+18.301	−0.00219	−0.038
B.....369	5.0	35 15.7	+3.53	+40 07 17.50	+18.315	−0.00215	−0.025
B.J.....55	5.9	35 39.6	+4.39	+67 35 17.58	+18.324	−0.00269	−0.002
B.....371	5.4	35 55.9	+4.59	+70 10 05.88	+18.308	−0.00281	−0.007
Green...3169	6.8	36 08.8	+5.01	+74 09 01.65	+18.274	−0.00305	−0.039
B.....373	6.4	36 17.0	+3.34	+25 17 29.08	+18.259	−0.00207	−0.043
B.....372	5.3	36 18.0	+3.64	+42 09 44.19	+18.159	−0.00228	−0.142
B.....375	6.2	36 33.8	+3.38	+29 35 32.34	+18.290	−0.00209	−0.003
B.J.....56	4.5	36 44.8	+3.12	+ 5 01 56.68	+18.288	−0.00194	+0.002
B.....379	5.7	36 51.1	+3.46	+34 47 29.85	+18.252	−0.00214	−0.031
B.....380	5.9	37 13.6	+4.03	+60 05 52.11	+18.256	−0.00250	−0.013
G.....592	7.0	37 17.8	+3.53	+39 55 24.58	+18.272	−0.00220	.....
B.....382	5.5	37 36.5	+3.25	+19 49 52.46	+17.584	−0.00202	−0.672
G.....595	7.0	37 47.2	+3.62	+44 52 07.74	+18.254	−0.00226	.....
Gr.....81	6.8	37 55.1	+3.79	+52 25 56.64	+18.253	−0.00237	+0.003
B.J.....57	4.1	38 00.7	+3.74	+50 14 08.41	+18.226	−0.00235	−0.015
B.....387	5.4	38 10.4	+3.03	− 4 08 35.42	+18.213	−0.00192	−0.022
A.....442	6.3	38 20.6	+3.93	+57 05 05	+18.24	−0.002	.....
A.....443	6.4	38 50.2	+3.91	+56 38 12	+18.22	−0.002	.....
A.....444	6.4	38 56.9	+3.64	+45 41 16	+18.22	−0.002	.....
B.....392	6.6	40 00.7	+3.27	+19 38 02.50	+18.067	−0.00209	−0.100
B.J.....60	4.3	40 38.3	+3.16	+ 8 42 18.23	+18.194	−0.00204	+0.050
B.....394	5.8	41 13.6	+4.30	+63 24 31.59	+17.887	−0.00281	−0.236
Gr.....87	6.5	41 42.0	+3.25	+16 57 44.26	+18.111	−0.00211	+0.002
G.....610	7.0	42 16.1	+3.67	+45 46 55.55	+18.088	−0.00239	.....
Gr.....88	5.7	43 17.9	+3.25	+16 30 27.32	+18.033	−0.00214	−0.016
B.....402	6.3	43 19.9	+3.53	+37 30 18.36	+18.017	−0.00232	−0.026
B.....405	6.0	43 32.0	+3.43	+32 14 04.21	+18.344	−0.00225	+0.308
A.....464	6.3	43 40.1	+3.71	+47 26 56	+18.04	−0.002	.....
Green...2791	6.9	43 41.1	+5.30	+75 08 37.91	+17.996	−0.00346	−0.039
G.....615	5.9	43 46.2	+3.11	+ 3 14 11.08	+18.031	−0.00206	.....
Green...9355	6.9	44 45.2	+4.30	+64 24 30.85	+17.993	−0.00284	.....
B.....410	6.4	45 10.0	+3.31	+21 49 43.12	+17.961	−0.00221	−0.011
B.....409	6.2	45 10.9	+3.82	+51 29 23.70	+17.859	−0.00255	−0.113
Green...2066	6.9	45 42.3	+5.84	+77 45 11.30	+17.920	−0.00387	−0.037
B.....412	5.7	46 04.2	+3.92	+54 42 07.44	+17.928	−0.00263	−0.009
Gr.....90	5.9	46 05.3	+3.18	+10 35 52.61	+17.910	−0.00214	−0.031
B.....415	5.9	46 25.5	+3.80	+50 20 53.70	+17.895	−0.00256	−0.029
A.....477	6.5	47 05.1	+3.81	+51 01 51	+17.90	−0.003	.....
Green...2792	7.0	47 06.0	+5.45	+75 46 52.52	+17.901	−0.00366	.....
B.....420	5.7	47 53.2	+3.59	+40 17 09.08	+17.857	−0.00244	−0.009
B.J.....63	3.3	47 54.5	+4.28	+63 13 38.21	+17.850	−0.00291	−0.015
B.J.....64	3.5	47 56.8	+3.41	+29 08 26.55	+17.630	−0.00233	−0.233
B.....422	4.9	48 35.3	+3.29	+18 51 18.24	+17.722	−0.00226	−0.115
B.....423	4.7	48 35.3	+3.29	+18 51 09.60	+17.729	−0.00226	−0.108
B.J.....65	4.6	48 53.7	+3.10	+ 2 44 36.57	+17.845	−0.00215	+0.019
Green...6286	5.0	48 59.5	+4.61	+68 14 36.53	+17.813	−0.00315	−0.013
G.....639	6.9	1 49 28.5	+3.60	+40 15 42.03	+17.759	−0.00249	−0.048

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....490	6.4	1 49 38.2	+3.53	+36 41 12	+17.81	−0.002	.....
B.J.....66	2.7	49 39.9	+3.31	+20 22 06.32	+17.686	−0.00230	−0.109
Green...3173	6.7	49 41.7	+5.35	+74 53 46.72	+17.773	−0.00367	−0.026
B.....430	6.2	50 34.7	+3.54	+36 50 12.58	+17.760	−0.00246	+0.003
B.....432	6.0	50 48.2	+3.55	+36 48 38.15	+17.759	−0.00249	+0.011
B.....434	6.1	50 49.7	+3.34	+23 08 11.07	+17.740	−0.00234	−0.008
Gr.....95	6.2	51 14.6	+3.10	+ 1 24 14.89	+17.941	−0.00219	+0.206
A.....500	6.3	52 09.7	+4.21	+61 15 33	+17.70	−0.003	.....
G.....656	6.8	52 20.7	+3.74	+46 39 23.32	+17.691	−0.00264	.....
Gr.....96	5.2	52 25.9	+3.27	+17 22 42.27	+17.668	−0.00232	−0.019
G.....657	6.7	52 28.5	+3.63	+41 15 21.12	+17.685	−0.00257	.....
A.....504	6.0	52 36.8	+3.40	+27 22 03	+17.68	−0.002	.....
B.....439	6.0	52 50.0	+3.79	+48 45 52.83	+17.703	−0.00269	+0.038
B.....441	4.9	52 54.6	+3.34	+23 09 26.59	+17.644	−0.00237	−0.018
B.....440	5.4	52 59.0	+4.39	+64 11 02.79	+17.650	−0.00310	−0.009
Gr.....97	6.6	53 24.9	+3.05	− 2 29 54.19	+17.666	−0.00219	+0.020
Green...2796	6.7	53 46.9	+5.47	+75 03 58.72	+17.611	−0.00387	−0.020
Green...2069	6.4	53 48.3	+5.94	+77 28 50.82	+17.625	−0.00420	−0.005
Green...5023	4.6	54 32.7	+4.87	+70 28 15.55	+17.592	−0.00346	−0.007
A.....520	6.1	54 35.7	+3.33	+20 37 19	+17.60	−0.002	0.00
B.....447	6.3	54 36.6	+3.21	+11 51 30.92	+17.556	−0.00232	−0.035
Green...3583	6.2	55 11.2	+5.23	+73 24 56.62	+17.585	−0.00375	+0.013
B.....450	6.1	55 28.2	+3.12	+ 2 40 00.86	+17.311	−0.00228	−0.244
B.J.....70	4.0	55 43.6	+5.05	+71 59 10.69	+17.569	−0.00364	+0.025
Green...2425	5.3	56 04.5	+5.88	+76 50 58.00	+17.482	−0.00427	−0.052
Green...9368	5.9	56 09.4	+4.43	+64 28 02.00	+17.524	−0.00321	−0.007
B.....459	5.1	56 18.0	+3.97	+54 03 10.72	+17.523	−0.00289	+0.003
B.....457	5.8	56 19.7	+4.40	+63 57 20.92	+17.523	−0.00320	+0.005
Green...2797	5.3	56 53.5	+5.62	+75 40 58.87	+17.481	−0.00408	−0.019
B.....463	4.2	57 23.4	+3.10	+ 2 19 45.45	+17.467	−0.00229	−0.006
B.....466	5.7	57 42.2	+3.50	+32 51 02.27	+17.443	−0.00257	−0.017
Gr.....104	6.3	57 44.3	+3.22	+13 02 34.67	+17.457	−0.00238	−0.006
Green...9369	6.5	57 53.3	+4.47	+64 40 17.92	+17.421	−0.00328	−0.037
Green...1181	6.0	58 15.9	+7.16	+80 51 57.95	+17.450	−0.00523	+0.009
B.J.....73	2.1	58 22.2	+3.67	+41 53 53.51	+17.378	−0.00272	−0.054
B.....469	6.0	58 23.0	+3.67	+41 53 58.14	+17.376	−0.00272	−0.055
B.....470	5.9	58 32.7	+3.40	+25 30 07.70	+17.440	−0.00253	+0.016
Gr.....107	5.6	58 34.7	+3.07	− 0 18 18.10	+17.459	−0.00230	+0.032
B.....472	6.6	58 46.3	+3.28	+17 49 15.57	+17.392	−0.00244	−0.022
Green....948	6.8	59 06.7	+7.31	+81 03 13.10	+17.386	−0.00537	−0.018
A.....551	5.9	59 08.5	+3.02	− 4 32 01	+17.41	−0.002	.....
B.....473	6.2	59 11.7	+3.07	− 0 46 17.49	+17.356	−0.00230	−0.039
G.....699	7.0	1 59 36.0	+3.87	+50 12 46.18	+17.383	−0.00289	.....
Gr.....108	6.6	2 00 06.2	+3.16	+ 7 18 14.99	+17.329	−0.00238	−0.032
Green...4512	6.7	01 20.6	+5.11	+71 07 47.04	+17.063	−0.00389	−0.243
A.....554	6.4	01 27.1	+3.17	+ 7 49 08	+17.31	−0.002	.....
B.....476	5.3	01 31.6	+3.35	+22 13 10.71	+17.254	−0.00254	−0.040
A.....556	6.3	01 42.9	+3.39	+25 16 33	+17.29	−0.003	.....
A.....557	6.3	01 52.4	+3.07	− 0 23 39	+17.29	−0.002	.....
B.J.....74	2.0	2 02 05.8	+3.37	+23 02 14.18	+17.125	−0.00258	−0.143

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....478	6.0	2 02 22.9	+4.16	+57 59 45.17	+17.264	−0.00316	+0.008
Green...1458	6.6	02 32.0	+6.67	+79 15 56.64	+17.293	−0.00503	+0.040
Green....530	6.9	02 52.5	+8.79	+83 08 21.90	+17.193	−0.00662	−0.046
B.....480	4.8	03 03.1	+3.61	+37 25 57.15	+17.184	−0.00277	−0.041
B.....481	6.6	04 05.0	+4.00	+53 25 05.65	+17.133	−0.00308	−0.046
B.J.....75	3.0	04 11.0	+3.56	+34 33 43.14	+17.135	−0.00275	−0.040
B.....483	5.1	04 17.8	+3.41	+25 30 51.92	+17.133	−0.00264	−0.037
Green...3585	6.2	05 02.2	+5.45	+73 36 17.94	+17.117	−0.00420	−0.024
B.....488	6.6	05 12.5	+4.15	+57 13 15.94	+17.138	−0.00321	+0.010
B.....489	6.4	05 24.9	+3.63	+38 36 53.99	+17.098	−0.00282	−0.021
B.....490	6.8	05 25.8	+3.63	+38 37 07.72	+17.089	−0.00282	−0.029
B.....491	6.1	05 38.1	+3.32	+19 04 34.00	+17.081	−0.00260	−0.028
B.....493	6.3	06 04.7	+3.41	+25 30 45.79	+17.077	−0.00267	−0.011
A.....573	6.5	06 09.1	+3.49	+31 06 09	+17.09	−0.003	.....
Gr.....113	5.7	06 35.9	+3.16	+ 8 08 55.33	+16.969	−0.00249	−0.100
B.....496	6.3	07 01.6	+3.04	− 2 14 53.22	+17.019	−0.00241	−0.026
B.....497	5.1	07 08.7	+3.47	+29 52 53.71	+16.978	−0.00273	−0.062
G.....731	6.4	07 09.0	+3.47	+29 52 55.11	+16.989	−0.00274	−0.055
B.J.....76	6.3	07 24.3	+4.66	+66 06 11.20	+17.030	−0.00366	+0.003
G.....733	6.6	07 31.3	+4.00	+52 38 11.92	+17.028	−0.00315	.....
A.....583	6.0	07 31.8	+3.38	+23 44 43	+17.02	−0.003	.....
B.....499	5.1	07 34.3	+3.75	+43 48 35.77	+17.013	−0.00296	−0.007
B.J.....77	5.7	07 36.7	+3.97	+50 38 53.28	+16.849	−0.00316	−0.169
B.....501	5.4	07 45.5	+3.35	+20 47 18.37	+17.013	−0.00267	+0.002
Gr.....115	6.0	08 08.6	+3.27	+14 51 30.08	+16.982	−0.00260	−0.016
B.....504	5.9	08 11.6	+3.06	− 2 48 50.28	+16.936	−0.00246	−0.054
N.A. ξ^1 Ceti.	4.5	08 13.7	+3.18	+ 8 25 29.34	+16.972	−0.00253	−0.016
G.....737	6.5	08 16.0	+3.83	+47 03 50.22	+16.914	−0.00304	−0.079
G.....745	6.8	09 27.2	+3.99	+52 05 30.26	+16.937	−0.00319	.....
A.....591	6.5	10 08.4	+3.85	+47 23 42	+16.91	−0.003	.....
B.....507	6.8	10 33.8	+4.17	+56 38 13.42	+16.881	−0.00335	0.000
B.....509	5.7	10 36.2	+3.40	+24 37 34.42	+16.792	−0.00274	−0.087
B.....508	5.5	10 36.6	+3.54	+32 56 27.52	+16.847	−0.00285	−0.031
B.....510	6.0	10 36.7	+3.43	+25 21 56.28	+16.817	−0.00278	−0.060
B.....514	5.1	11 33.4	+3.65	+33 48 45.67	+16.587	−0.00303	−0.247
B.....513	6.1	11 37.2	+4.22	+57 28 58.69	+16.850	−0.00342	+0.020
B.....515	6.3	11 44.1	+4.19	+57 05 58.52	+16.825	−0.00339	+0.001
B.J.....79	4.2	11 57.6	+3.56	+33 25 53.09	+16.770	−0.00289	−0.044
B.....519	6.9	12 44.7	+4.19	+56 43 11.69	+16.767	−0.00341	−0.009
G.....768	6.4	12 53.9	+4.19	+56 45 14.31	+16.774	−0.00342	.....
B.J.....81	5.7	13 07.0	+3.33	+19 29 06.71	+16.757	−0.00273	−0.002
B.....523	5.8	13 20.8	+3.11	+ 1 19 57.19	+17.124	−0.00258	+0.377
A.....605	6.5	13 24.1	+3.83	+46 03 28	+16.75	−0.003	.....
B.....522	5.4	13 28.0	+3.85	+46 57 54.17	+16.731	−0.00316	−0.011
G.....772	6.8	13 33.5	+4.02	+52 08 47.37	+16.743	−0.00330	.....
B.....526	5.4	13 43.8	+3.47	+28 13 39.53	+16.728	−0.00285	−0.002
G.....775	6.6	13 52.8	+3.38	+22 45 10.88	+16.727	−0.00279	.....
G.....777	6.8	14 04.4	+3.68	+39 25 15.62	+16.717	−0.00304	.....
G.....780	6.5	14 45.3	+4.13	+54 59 42.19	+16.685	−0.00341	.....
A.E. o Ceti. (Mira)	(6.3)	2 14 47.9	+3.03	− 3 23 08.91	+16.449	−0.00252	−0.237

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....529	6.4	2 14 51.5	+3.87	+46 53 52.15	+16.669	−0.00320	−0.005
B.....531	5.8	15 00.3	+3.95	+49 44 21.21	+16.644	−0.00328	−0.023
G.....782	6.0	15 01.0	+4.10	+54 05 50.49	+16.672	−0.00339	.....
A.....615	6.5	15 09.4	+3.02	− 4 45 34	+16.67	−0.003	+0.01
B.....533	6.8	15 33.3	+4.21	+56 49 50.92	+16.630	−0.00349	−0.011
B.....534	5.3	16 04.5	+4.16	+55 26 03.20	+16.616	−0.00346	0.000
B.....536	6.1	17 13.9	+3.72	+40 59 18.25	+16.465	−0.00312	−0.094
G.....789	6.7	17 15.0	+4.03	+51 40 23.38	+16.562	−0.00338	.....
B.....539	5.8	17 19.9	+3.07	− 0 00 54.78	+16.548	−0.00260	−0.005
A.....621	6.4	17 35.5	+4.14	+54 57 20	+16.55	−0.003	.....
B.....540	5.8	17 37.2	+3.05	− 1 17 39.68	+16.491	−0.00258	−0.048
B.....542	5.5	18 25.7	+3.97	+49 35 55.46	+16.460	−0.00336	−0.040
B.....544	6.5	18 54.2	+4.21	+56 12 07.49	+16.487	−0.00356	+0.011
B.....545	5.0	19 36.8	+3.98	+49 52 18.18	+16.424	−0.00340	−0.016
B.....546	5.6	19 59.4	+3.21	+10 12 12.29	+16.406	−0.00276	−0.015
Gr.....123	6.3	20 25.9	+3.09	− 3 11 13.55	+16.411	−0.00261	+0.007
A.E. ι Cass.	4.6	21 38.2	+4.90	+66 59 54.16	+16.348	−0.00420	+0.014
B.....552	6.5	21 49.1	+4.01	+50 10 04.06	+16.232	−0.00346	−0.098
A.....641	6.3	21 55.1	+3.46	+26 36 36	+16.33	−0.003	.....
B.....555	5.9	22 07.6	+3.54	+31 23 51.00	+16.279	−0.00307	−0.034
B.....556	6.8	22 36.0	+3.19	+ 9 47 57.12	+16.087	−0.00276	−0.202
Gr.....125	5.4	22 53.1	+3.51	+29 16 04.64	+16.194	−0.00305	−0.085
B.J.....85	4.2	23 22.3	+3.19	+ 8 03 25.41	+16.246	−0.00279	−0.004
B.....561	6.2	23 31.4	+3.51	+29 31 38.37	+16.312	−0.00306	+0.070
G.....823	6.1	24 05.5	+3.41	+23 04 03.06	+16.218	−0.00299	.....
G.....825	7.0	24 21.2	+3.70	+38 44 10.32	+16.205	−0.00325	.....
Gr.....127	6.3	24 46.9	+3.20	+ 9 09 50.57	+16.179	−0.00283	−0.003
Green...2430	7.0	24 47.5	+6.34	+76 19 16.96	+16.140	−0.00553	−0.042
A.....653	6.4	24 51.3	+3.59	+33 26 06	+16.18	−0.003	.....
B.....565	6.1	25 21.5	+3.44	+24 50 11.52	+16.065	−0.00305	−0.083
Gr.....128	6.1	25 35.4	+3.36	+19 27 21.79	+16.114	−0.00297	−0.025
Green...5041	6.8	25 47.1	+5.38	+70 53 52.87	+16.056	−0.00473	−0.074
Gr.....129	6.4	25 54.7	+3.32	+17 18 22.71	+16.038	−0.00295	−0.086
A.....659	6.0	26 08.9	+3.07	− 0 08 31	+16.11	−0.003	.....
B.....571	5.5	26 36.3	+3.65	+35 44 54.06	+16.088	−0.00324	+0.005
B.....572	5.6	26 50.7	+3.10	+ 1 52 06.89	+16.066	−0.00277	−0.004
B.....573	6.9	27 08.2	+4.09	+51 54 42.94	+16.048	−0.00364	−0.007
A.....665	5.9	27 26.5	+3.61	+34 08 44	+16.05	−0.003	.....
B.....574	5.7	27 34.5	+3.05	− 1 25 54.94	+16.003	−0.00274	−0.029
Gr.....131	6.1	27 58.3	+3.28	+14 38 11.56	+16.051	−0.00295	+0.036
Green...6980	6.8	28 01.8	+5.06	+67 58 22.86	+16.012	−0.00451	.....
B.J.....87	5.4	29 27.1	+5.63	+72 25 31.28	+15.954	−0.00504	+0.021
G.....850	7.0	29 49.9	+3.74	+39 16 16.50	+15.917	−0.00339	.....
B.....581	6.0	30 05.8	+3.68	+36 55 08.04	+15.899	−0.00334	0.000
Green...8520	6.1	30 14.2	+4.85	+65 21 11.45	+15.895	−0.00438	.....
B.....583	6.5	30 18.0	+3.17	+ 7 04 47.62	+15.783	−0.00288	−0.104
B.....582	5.8	30 18.8	+3.63	+34 17 43.14	+15.833	−0.00329	−0.054
B.....588	6.2	31 08.6	+3.29	+ 6 27 27.85	+17.304	−0.00311	+1.462
N.A. ν. Ceti.	5.0	31 09.0	+3.14	+ 5 12 03.66	+15.822	−0.00287	−0.018
A.....682	6.1	2 31 19.4	+3.72	+38 20 51	+15.84	−0.003	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....683	6.2	2 31 21.1	+3.57	+31 12 57	+15.84	−0.003	.....
A.....685	6.4	31 41.0	+3.59	+32 29 53	+15.82	−0.003	.....
Gr.....135	5.7	31 43.3	+3.27	+12 03 27.74	+15.740	−0.00301	−0.075
Gr.....137	6.6	31 48.9	+3.45	+24 15 21.16	+15.805	−0.00317	−0.007
A.....688	6.2	31 49.0	+3.18	+ 7 20 20	+15.81	−0.003	.....
A.....690	6.4	32 43.7	+3.70	+37 20 18	+15.77	−0.003	.....
B.....595	6.0	33 09.7	+3.02	− 3 47 07.46	+15.692	−0.00280	−0.042
B.J.....89	5.6	33 42.2	+3.40	+21 34 21.67	+15.689	−0.00313	−0.016
A.....695	6.5	33 55.7	+3.12	+ 3 03 14	+15.69	−0.003	.....
Green....955	5.9	34 44.4	+8.40	+81 04 05.50	+15.581	−0.00773	−0.071
B.J.....91	3.9	34 52.1	+3.07	− 0 03 33.59	+15.638	−0.00287	−0.002
B.....606	5.6	35 25.3	+3.50	+26 40 29.45	+15.576	−0.00327	−0.034
B.....607	6.5	35 30.9	+3.16	+ 5 43 31.01	+15.615	−0.00296	+0.010
B.....610	5.1	36 33.7	+3.77	+39 48 49.50	+15.357	−0.00354	−0.191
B.....609	5.9	36 36.0	+4.27	+54 43 20.38	+15.519	−0.00400	−0.027
B.....612	5.9	36 37.2	+3.07	− 1 04 41.25	+15.408	−0.00291	−0.136
Gr.....140	6.1	36 38.7	+4.21	+53 08 33.54	+15.514	−0.00394	−0.032
G.....878	6.9	36 59.0	+4.01	+47 52 53.48	+15.528	−0.00377	.....
B.J.....92	6.3	37 04.0	+5.11	+67 26 34.50	+15.491	−0.00478	−0.029
A.....714	6.1	37 16.4	+3.02	− 3 35 55	+15.51	−0.003	.....
Gr.....142	5.7	37 17.3	+3.38	+19 37 42.58	+15.471	−0.00319	−0.040
Gr.....143	6.3	37 38.1	+3.22	+10 21 30.44	+15.464	−0.00305	−0.028
B.J.....93	4.1	38 02.7	+4.08	+48 50 53.93	+15.378	−0.00389	−0.088
B.J.....94	4.7	38 10.0	+3.51	+27 19 28.81	+15.452	−0.00332	−0.007
B.....619	5.7	38 13.1	+3.89	+43 54 53.77	+15.452	−0.00368	−0.004
B.J.....96	3.4	38 38.1	+3.11	+ 2 51 24.96	+15.284	−0.00295	−0.148
Gr.....145	6.5	39 17.6	+3.34	+17 23 00.51	+15.368	−0.00319	−0.032
Gr.....146	5.8	39 35.3	+3.30	+14 55 52.60	+15.362	−0.00315	−0.022
Gr.....148	5.2	40 03.2	+3.26	+12 04 02.97	+15.289	−0.00313	−0.069
B.J.....98	4.2	40 04.5	+3.24	+ 9 44 04.49	+15.321	−0.00312	−0.031
A.....731	6.5	40 37.5	+3.14	+ 4 20 00	+15.33	−0.003	.....
A.....734	6.5	41 24.1	+3.67	+35 36 21	+15.28	−0.004	.....
G.....899	7.0	41 37.8	+3.91	+43 53 41.83	+15.268	−0.00376	.....
B.....634	4.8	42 32.8	+3.56	+28 52 25.43	+15.087	−0.00345	−0.125
G.....904	6.6	42 35.6	+4.40	+56 39 29.88	+15.214	−0.00424	.....
Gr.....151	6.0	43 29.2	+3.36	+17 54 34.29	+15.141	−0.00327	−0.021
B.....636	6.1	43 31.7	+3.48	+24 48 46.68	+15.150	−0.00339	−0.006
Green...6315	6.2	43 55.8	+5.30	+68 30 58.36	+15.126	−0.00514	−0.011
B.J.....99	3.8	44 07.4	+4.35	+55 31 21.26	+15.111	−0.00423	−0.011
Gr.....153	5.3	44 16.0	+3.34	+17 05 25.53	+15.118	−0.00326	+0.001
B.J.....100	3.6	44 41.0	+3.52	+26 53 24.17	+14.977	−0.00345	−0.113
B.....644	4.3	44 53.8	+3.77	+37 56 54.91	+14.972	−0.00370	−0.105
A.....752	6.0	45 40.0	+4.00	+46 28 19	+15.04	−0.004	.....
G.....927	7.0	45 56.2	+3.94	+44 31 23.82	+15.022	−0.00387	.....
B.....646	4.8	45 57.9	+3.69	+34 41 23.36	+14.942	−0.00362	−0.074
Green...4043	6.8	46 21.1	+5.98	+73 00 11.95	+14.994	−0.00585	−0.004
G.....928	7.0	46 28.4	+4.24	+52 37 41.69	+14.990	−0.00417	.....
N.A. σ Arietis	5.5	46 31.3	+3.31	+14 42 41.74	+14.948	−0.00327	−0.034
A.....759	6.3	47 13.0	+4.07	+48 12 06	+14.95	−0.004	.....
B.J.....103	4.0	2 47 52.1	+4.23	+52 23 41.06	+14.903	−0.00419	−0.002

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....654	5.6	2 48 01.5	+3.77	+37 58 16.52	+14.814	−0.00375	−0.082
G.....935	6.5	48 05.9	+4.17	+50 47 59.50	+14.895	−0.00413	.....
A.....765	6.5	48 10.7	+3.33	+16 07 02	+14.84	−0.003	−0.005
Green...2437	7.0	48 26.3	+6.87	+76 43 01.05	+14.876	−0.00678	.....
B.....656	5.8	48 48.3	+4.73	+61 09 15.68	+14.877	−0.00472	+0.027
A.....770	6.2	48 56.2	+4.90	+63 58 02	+14.84	−0.005	.....
G.....943	5.8	50 28.2	+4.04	+46 47 58.64	+14.756	−0.00405	.....
Green...9394	6.9	50 30.4	+4.93	+64 03 19.84	+14.754	−0.00493	.....
G.....944	6.5	50 31.7	+4.19	+50 53 53.34	+14.753	−0.00420	.....
Gr.....158	5.9	50 44.8	+3.36	+17 58 03.10	+14.734	−0.00339	−0.005
Gr.....159	5.6	51 21.2	+3.38	+17 39 53.49	+14.515	−0.00343	−0.189
B.....662	6.2	51 24.8	+3.21	+ 8 01 11.40	+14.605	−0.00325	−0.091
B.....664	5.3	51 49.3	+3.63	+31 34 19.99	+14.634	−0.00367	−0.037
B.....666	5.4	52 06.7	+3.01	− 4 04 27.66	+14.607	−0.00305	−0.047
A.....785	6.2	52 19.8	+3.79	+38 15 14	+14.64	−0.004	.....
A.....786	6.3	52 21.6	+3.14	+ 4 08 15	+14.65	−0.003	.....
Gr.....161	5.9	52 56.0	+3.43	+20 18 29.92	+14.605	−0.00350	−0.004
B.....668	4.7	53 00.1	+3.83	+39 18 10.48	+14.551	−0.00388	−0.050
B.....670	5.1	53 28.8	+3.71	+34 49 22.70	+14.584	−0.00376	+0.012
B.....672	5.7	53 43.1	+4.06	+46 51 38.60	+14.579	−0.00413	+0.021
B.....673	7.0	53 43.4	+3.43	+21 15 29.25	+14.542	−0.00351	−0.015
G.....958	6.5	53 50.6	+3.86	+40 40 28.81	+14.503	−0.00394	−0.052
N.A. ε Arietis.	4.6	54 03.8	+3.42	+20 58 51.07	+14.525	−0.00350	−0.010
B.J.....105	5.8	54 04.6	+7.82	+79 03 51.25	+14.558	−0.00790	+0.021
B.....677	5.4	54 09.9	+3.02	− 3 08 28.17	+14.472	−0.00309	−0.059
B.....678	5.6	54 26.9	+4.26	+51 59 39.70	+14.487	−0.00435	−0.027
A.....802	6.3	54 29.6	+3.78	+37 46 27	+14.51	−0.004	.....
B.....679	4.8	54 53.4	+3.21	+ 8 32 57.22	+14.481	−0.00330	−0.006
B.....682	5.6	55 08.4	+3.03	− 2 49 21.71	+14.460	−0.00311	−0.012
A.....809	6.7	55 50.9	+3.24	+10 30 53	+14.44	−0.003	.....
A.....811	6.3	56 18.7	+3.02	− 3 14 07	+14.41	−0.003	.....
B.....686	6.1	56 35.8	+3.53	+26 06 23.42	+14.377	−0.00364	−0.007
B.....689	7.0	57 05.6	+3.55	+26 15 31.07	+14.185	−0.00369	−0.168
A.....815	6.4	57 07.8	+3.15	+ 4 58 49	+14.36	−0.003	.....
B.J.....107	2.5	57 34.4	+3.13	+ 3 44 13.59	+14.248	−0.00326	−0.076
B.....692	5.9	57 39.6	+3.14	+ 3 59 53.98	+14.326	−0.00327	+0.007
Green....959	5.9	57 40.8	+9.04	+81 07 25.49	+14.325	−0.00927	+0.004
B.J.....108	3.0	58 16.2	+4.32	+53 09 16.57	+14.277	−0.00448	−0.004
B.....697	5.1	58 46.2	+4.48	+56 21 10.44	+14.322	−0.00465	+0.071
A.....826	6.3	58 56.5	+4.45	+55 43 09	+14.24	−0.005	.....
B.J.....109	(3.8)	59 24.3	+3.83	+38 29 31.65	+14.108	−0.00401	−0.103
A.....828	6.2	59 31.7	+3.87	+40 13 54	+14.21	−0.004	.....
Gr.....171	6.6	59 40.0	+3.33	+15 30 26.49	+14.100	−0.00349	−0.099
B.....699	6.0	59 46.5	+4.98	+63 42 31.00	+14.183	−0.00519	−0.005
A.....831	6.2	2 59 58.8	+3.10	+ 1 30 45	+14.18	−0.003	.....
B.....702	5.6	3 00 09.7	+3.51	+24 54 19.22	+14.150	−0.00368	−0.014
Gr.....172	5.8	01 27.1	+3.29	+12 50 26.13	+14.016	−0.00347	−0.072
G.....975	5.8	01 35.6	+4.29	+51 52 02.72	+14.080	−0.00451	.....
A.....836	6.5	01 37.3	+4.09	+46 57 42	+14.08	−0.004	.....
Green...3197	4.9	3 02 09.3	+6.42	+74 03 09.29	+13.948	−0.00674	−0.097

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.J.....111	(2.2)	3 02 18.5	+3.89	+40 36 34.27	+14.030	−0.00411	−0.001
B.....709	6.5	02 21.4	+3.37	+17 31 58.93	+14.031	−0.00357	+0.003
B.J.....112	4.1	02 33.9	+4.31	+49 16 12.32	+13.935	−0.00470	−0.081
Green...1475	7.0	02 50.3	+8.38	+79 47 31.56	+13.947	−0.00881	−0.056
Gr.....174	6.5	03 14.9	+3.39	+18 26 59.98	+13.968	−0.00361	−0.008
Green...9402	6.5	03 19.4	+5.09	+64 33 13.00	+13.971	−0.00538	.....
Gr.....175	4.0	03 25.2	+4.03	+44 31 01.82	+13.806	−0.00430	−0.160
A.....848	6.5	04 10.2	+3.43	+20 25 03	+13.92	−0.004	.....
B.....715	5.9	04 11.7	+3.60	+28 44 01.27	+13.888	−0.00384	−0.025
A.....849	6.1	05 06.2	+3.55	+26 33 06	+13.86	−0.004	.....
G.....991	6.9	05 13.2	+4.30	+51 49 23.14	+13.853	−0.00460	.....
Green...3607	6.8	05 27.6	+6.35	+73 31 50.77	+13.798	−0.00676	−0.039
B.....717	4.8	05 28.5	+3.86	+39 16 12.86	+13.835	−0.00413	+0.003
A.....852	6.3	06 12.2	+4.12	+47 23 20	+13.79	−0.004	.....
G.....994	6.7	06 12.6	+3.95	+42 02 11.54	+13.789	−0.00424	.....
Gr.....176	6.4	06 25.2	+3.29	+12 42 25.35	+13.797	−0.00355	+0.021
B.J.....114	4.3	06 28.8	+3.42	+19 23 12.70	+13.765	−0.00370	−0.004
G.....1000	6.3	06 48.3	+3.00	− 4 09 04.15	+13.751	−0.00324	.....
B.....719	5.9	06 52.2	+3.57	+26 55 05.25	+13.727	−0.00384	−0.017
A.....860	6.2	07 08.5	+4.14	+47 50 23	+13.74	−0.004	.....
B.....720	5.9	07 39.6	+3.18	+ 6 19 20.00	+13.681	−0.00344	−0.012
B.J.....116	5.2	08 10.8	+3.06	− 1 31 56.21	+13.599	−0.00334	−0.061
Green...7741	6.7	08 24.8	+5.28	+66 02 47.11	+13.640	−0.00570	−0.008
B.J.....115	5.9	08 51.8	+7.48	+77 24 19.08	+13.573	−0.00809	−0.044
B.....724	6.0	08 53.7	+4.57	+56 48 21.26	+13.618	−0.00495	+0.004
G.....1006	6.7	08 57.9	+3.96	+42 10 05.16	+13.613	−0.00430	.....
Green...8540	6.4	09 37.9	+5.21	+65 19 31.28	+13.577	−0.00565	+0.007
A.E. ζ Arietis.	5.0	09 43.5	+3.44	+20 42 41.00	+13.479	−0.00375	−0.075
B.....729	5.3	09 45.7	+4.27	+50 36 15.83	+13.541	−0.00465	−0.017
B.....731	5.7	09 51.3	+3.64	+30 13 19.25	+13.547	−0.00396	−0.005
G.....1010	7.0	09 57.1	+4.06	+45 00 49.03	+13.550	−0.00442	.....
A.....878	6.5	10 13.2	+3.70	+32 31 20	+13.53	−0.004	.....
A.....879	6.5	10 23.2	+3.75	+34 21 24	+13.52	−0.004	.....
B.....726	5.9	10 49.7	+13.57	+84 35 40.86	+13.357	−0.01475	−0.133
A.....881	6.1	11 02.4	+3.69	+31 51 17	+13.48	−0.004	.....
Green...5620	6.6	11 26.7	+5.72	+69 24 08.39	+13.443	−0.00624	−0.010
B.....740	5.5	11 43.7	+4.02	+43 41 41.31	+13.404	−0.00442	−0.027
A.....888	6.3	11 55.5	+3.87	+38 57 11	+13.43	−0.004	.....
Green...8541	4.8	12 03.5	+5.24	+65 19 26.00	+13.407	−0.00573	−0.006
B.....742	5.3	12 12.8	+4.26	+49 53 34.71	+13.369	−0.00468	−0.030
B.....744	5.2	12 43.0	+4.25	+49 45 59.87	+13.340	−0.00468	−0.027
B.....746	5.0	13 05.9	+3.74	+33 53 38.13	+13.330	−0.00413	−0.012
B.....749	5.8	13 46.0	+3.07	− 1 15 27.44	+13.251	−0.00343	−0.047
Green...3610	6.9	14 03.6	+6.58	+73 51 03.72	+13.135	−0.00724	−0.150
B.....751	6.1	14 33.1	+3.58	+26 44 46.05	+13.168	−0.00397	−0.078
B.....752	5.1	14 38.4	+3.14	+ 3 02 26.19	+13.335	−0.00352	+0.094
B.....755	4.6	14 53.4	+3.62	+28 43 21.31	+13.198	−0.00402	−0.027
B.....756	6.6	15 05.3	+3.55	+25 20 20.33	+13.119	−0.00395	−0.093
B.....757	5.0	15 24.5	+4.01	+43 00 17.31	+13.181	−0.00445	−0.010
B.....758	6.3	3 15 29.2	+4.24	+48 44 53.22	+13.119	−0.00474	−0.066

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
N.A. τ^1 Arietis	5.2	3 16 01.7	+3.46	+20 49 23.27	+13.115	−0.00386	−0.033
B.....763	5.8	16 24.2	+3.14	+ 3 21 06.71	+13.096	−0.00352	−0.029
B.....768	5.7	16 47.5	+3.60	+27 17 05.49	+13.087	−0.00402	−0.012
B.....767	5.4	16 50.2	+4.23	+48 53 30.64	+13.075	−0.00474	−0.021
Green...9412	5.6	16 51.0	+5.17	+64 15 54.49	+13.117	−0.00577	+0.017
Gr.....183	5.3	17 34.3	+3.45	+20 25 14.18	+13.043	−0.00387	−0.007
B.J.....120	1.9	17 53.4	+4.27	+49 32 29.47	+13.000	−0.00479	−0.026
G.....1032	6.8	18 10.7	+4.72	+58 22 30.68	+13.011	−0.00529	.....
B.....774	5.9	18 51.8	+3.74	+33 13 02.44	+12.937	−0.00422	−0.024
Gr.....185	5.7	18 59.4	+3.54	+24 24 21.50	+12.910	−0.00399	−0.046
G.....1039	6.7	19 11.8	+3.96	+40 56 18.58	+12.942	−0.00447	.....
Gr.....186	6.2	19 12.9	+3.30	+12 18 39.20	+12.941	−0.00373	.....
Gr.....187	5.9	19 14.6	+3.45	+20 29 05.00	+12.940	−0.00390	+0.001
G.....1041	5.9	19 33.6	+4.24	+48 48 15.43	+12.918	−0.00478	.....
B.J.....121	3.6	19 58.1	+3.23	+ 8 42 45.49	+12.811	−0.00365	−0.076
Green...4547	6.8	20 58.5	+6.16	+71 33 04.81	+12.829	−0.00696	+0.005
G.....1046	7.0	21 12.8	+4.27	+49 17 10.16	+12.807	−0.00485	.....
B.....780	5.1	21 38.8	+4.25	+48 44 59.10	+12.755	−0.00484	−0.020
B.J.....122	4.4	21 46.3	+4.83	+59 37 39.04	+12.773	−0.00548	+0.006
Gr.....189	6.5	21 54.8	+3.42	+18 26 31.15	+12.749	−0.00390	−0.011
B.J.....123	3.6	22 17.4	+3.25	+ 9 25 09.65	+12.687	−0.00372	−0.045
B.....783	5.8	22 24.8	+4.29	+49 32 11.56	+12.699	−0.00489	−0.024
B.....787	5.9	22 41.3	+3.76	+33 29 46.31	+12.648	−0.00429	−0.056
B.....786	4.7	22 43.1	+4.77	+58 34 02.41	+12.702	−0.00543	0.000
A.....939	6.5	22 54.6	+4.75	+59 03 24	+12.70	−0.005	.....
B.....790	4.8	22 55.6	+4.27	+49 11 51.87	+12.655	−0.00488	−0.033
B.....791	5.2	23 08.0	+4.56	+55 08 28.35	+12.672	−0.00519	−0.002
A.....943	6.5	23 09.3	+4.17	+46 37 38	+12.67	−0.005	.....
Gr.....191	6.1	23 10.7	+3.50	+22 29 39.85	+12.554	−0.00401	−0.120
B.J.....124	4.8	24 13.4	+4.22	+47 41 06.78	+12.623	−0.00482	+0.023
B.....796	6.1	24 15.3	+4.22	+47 47 40.70	+12.564	−0.00485	−0.034
G.....1074	6.7	25 03.5	+4.27	+48 54 07.21	+12.547	−0.00491	.....
Green...3612	6.4	25 19.3	+6.50	+73 02 34.36	+12.488	−0.00746	−0.040
G.....1077	6.9	25 22.2	+4.28	+49 05 36.85	+12.525	−0.00493	.....
B.....801	5.3	25 29.2	+3.28	+11 01 41.44	+12.495	−0.00378	−0.019
G.....1079	7.0	25 32.0	+3.96	+40 27 12.96	+12.514	−0.00457	.....
B.....802	5.6	25 46.7	+4.22	+47 43 01.96	+12.465	−0.00488	−0.029
A.....958	6.1	25 53.7	+3.61	+27 15 55	+12.49	−0.004	.....
B.J.....125	4.1	25 54.1	+3.31	+12 37 43.46	+12.480	−0.00383	−0.005
A.....960	6.1	25 58.5	+3.18	+ 5 52 52	+12.48	−0.004	.....
B.....805	5.4	26 11.8	+4.14	+45 45 09.10	+12.396	−0.00478	−0.069
G.....1090	6.0	26 28.1	+4.10	+44 33 00.36	+12.451	−0.00474	.....
A.....963	6.5	26 33.5	+4.72	+57 33 47	+12.45	−0.005	.....
A.....964	6.2	26 47.2	+4.52	+54 40 13	+12.45	−0.005	+0.02
B.....807	6.0	26 55.9	+3.81	+35 09 22.17	+12.407	−0.00441	−0.008
B.....809	6.0	27 38.7	+3.94	+39 35 47.51	+12.322	−0.00457	−0.044
B.....810	5.9	27 43.7	+3.24	+ 9 04 11.35	+12.320	−0.00378	−0.040
G.....1095	6.9	28 31.1	+4.11	+44 30 03.88	+12.309	−0.00478	.....
Green...2824	6.2	28 32.4	+7.14	+75 26 28.56	+12.321	−0.00827	+0.013
G.....1098	6.5	3 29 00.6	+3.41	+17 32 16.25	+11.926	−0.00399	−0.350

Star Catalogue and Number	Magnitude	Mean Right Ascension. 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....815	6.1	3 29 06.6	+3.55	+24 09 47.02	+12.238	−0.00415	−0.027
B.....817	4.4	30 05.3	+4.25	+47 53 38.35	+12.171	−0.00498	−0.026
A.....983	6.5	31 14.7	+4.68	+56 38 15	+12.13	−0.005	.....
B.....821	7.0	31 40.3	+3.52	+22 54 49.59	+12.051	−0.00415	−0.036
G.....1108	6.4	31 54.7	+4.04	+42 17 13.51	+12.073	−0.00476	.....
G.....1110	6.9	32 06.1	+4.12	+44 30 25.13	+12.060	−0.00485	.....
B.....823	6.4	32 10.1	+3.08	+ 0 17 40.87	+11.902	−0.00364	−0.150
B.....825	4.4	32 16.7	+3.06	+ 0 06 59.63	+11.563	−0.00360	−0.482
G.....1115	7.0	32 53.4	+4.03	+42 14 48.53	+11.879	−0.00476	−0.126
Green...5627	7.0	33 43.8	+5.96	+69 33 20.35	+11.940	−0.00703	−0.006
Gr.....199	6.4	33 46.5	+3.48	+20 37 21.66	+11.943	−0.00413	.....
B.J.....129	5.4	34 20.1	+5.17	+62 55 33.06	+11.923	−0.00613	+0.022
Gr.....200	6.3	34 20.2	+3.39	+16 14 39.99	+11.878	−0.00403	−0.026
Green...3211	6.8	34 37.6	+6.90	+74 15 16.81	+11.920	−0.00816	+0.037
G.....1125	6.5	35 07.9	+3.00	− 3 40 59.26	+11.848	−0.00358	.....
B.....835	6.0	35 09.8	+3.12	+ 2 45 52.78	+11.848	−0.00372	+0.006
B.....833	5.7	35 16.1	+3.90	+37 17 25.16	+11.813	−0.00463	−0.022
B.....832	6.1	35 17.2	+4.92	+59 40 48.18	+11.835	−0.00583	+0.002
N.A. 11 Tauri	6.7	35 23.6	+3.58	+25 02 20.65	+11.815	−0.00426	−0.008
A.....1003	6.2	35 24.9	+3.05	− 1 24 48	+11.82	−0.004	.....
B.J.....131	3.0	36 30.7	+4.26	+47 30 01.70	+11.711	−0.00509	−0.035
B.....839	5.1	36 40.1	+3.80	+33 40 36.76	+11.725	−0.00453	−0.011
Gr.....203	5.5	37 07.3	+3.45	+19 24 44.71	+11.699	−0.00414	−0.007
B.....830	6.0	37 16.7	+20.33	+86 21 54.54	+11.624	−0.02432	−0.068
Green...7754	5.8	37 29.1	+5.64	+66 55 12.52	+11.573	−0.00675	−0.107
A.....1012	6.1	37 38.7	+4.29	+48 14 17	+11.67	−0.005	.....
B.....842	5.2	38 09.5	+5.22	+63 03 41.99	+11.617	−0.00625	−0.013
G.....1135	6.1	38 22.1	+4.19	+45 48 57.27	+11.618	−0.00503	.....
Gr.....204	6.3	38 34.9	+3.46	+19 22 52.34	+11.569	−0.00418	−0.034
B.J.....132	3.9	38 40.3	+3.75	+32 00 13.37	+11.576	−0.00451	−0.017
B.....845	5.6	38 41.7	+3.87	+36 10 35.26	+11.556	−0.00466	−0.035
B.J.....134	3.9	39 04.5	+4.07	+42 17 41.73	+11.559	−0.00489	−0.005
Gr.....208	6.0	39 13.8	+3.49	+20 38 42.16	+11.550	−0.00421	−0.006
Gr.....209	5.4	39 27.0	+3.56	+24 00 25.09	+11.486	−0.00430	−0.055
B.J.....136	4.0	39 31.7	+3.56	+23 49 51.55	+11.488	−0.00429	−0.044
B.....853	5.8	39 41.2	+4.18	+45 24 00.22	+11.506	−0.00504	−0.015
G.....1150	6.5	39 41.6	+3.94	+38 23 34.86	+11.522	−0.00475	.....
Gr.....211	5.6	39 47.4	+3.57	+24 33 26.65	+11.479	−0.00431	−0.038
Green...5076	5.4	39 50.9	+6.18	+70 35 37.13	+11.511	−0.00744	.....
Gr.....212	4.4	39 50.9	+3.56	+24 11 07.75	+11.481	−0.00431	−0.031
B.J.....137	5.4	39 56.2	+3.05	− 1 26 47.40	+11.494	−0.00369	−0.008
B.....859	6.1	40 20.3	+3.07	− 0 34 45.84	+11.473	−0.00372	−0.001
G.....1154	6.9	40 27.8	+4.45	+51 25 39.55	+11.380	−0.00537	−0.088
Gr.....214	4.0	40 28.1	+3.56	+24 05 13.34	+11.432	−0.00432	−0.036
A.....1030	6.2	40 28.4	+4.67	+55 38 34	+11.46	−0.006	.....
B.....861	6.1	40 32.6	+3.57	+24 16 26.59	+11.418	−0.00432	−0.041
B.J.....138	4.5	40 50.4	+6.27	+71 03 21.60	+11.398	−0.00757	−0.040
B.....863	5.5	40 53.4	+3.19	+ 5 46 06.96	+11.421	−0.00387	−0.013
Gr.....215	4.3	40 58.9	+3.55	+23 40 06.72	+11.389	−0.00431	−0.042
Green...8559	4.7	3 41 16.2	+5.45	+65 14 54.88	+11.409	−0.00659	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....1039	6.1	3 41 21.2	+3.20	+ 6 31 27	+11.40	−0.004	.....
G.....1169	7.0	41 37.4	+3.57	+24 14 29.68	+11.385	−0.00433	.....
G.....1167	5.7	41 39.8	+4.41	+50 27 30.68	+11.382	−0.00534	.....
B.....866	6.0	41 42.3	+5.23	+63 01 16.36	+11.329	−0.00633	−0.047
B.J.....139	3.0	42 07.9	+3.56	+23 49 38.76	+11.297	−0.00433	−0.048
A.....1042	6.5	42 08.5	+4.75	+56 50 32	+11.35	−0.006	.....
A.....1045	6.5	42 10.0	+3.75	+31 55 05	+11.30	−0.005	−0.04
Green...6347	6.3	42 51.0	+5.84	+68 14 01.75	+11.296	−0.00708	.....
A.....1049	6.2	42 55.6	+4.13	+43 41 09	+11.29	−0.005	.....
B.....872	5.7	43 01.0	+3.55	+23 08 42.84	+11.231	−0.00433	−0.050
B.....874	5.3	43 20.0	+3.29	+10 52 00.92	+11.236	−0.00402	−0.022
G.....1177	6.6	43 38.2	+4.50	+52 12 26.12	+11.240	−0.00548	.....
B.....876	5.9	43 48.2	+4.17	+44 41 36.74	+11.191	−0.00507	−0.033
B.J.....142	3.8	43 48.5	+3.56	+23 46 43.76	+11.179	−0.00435	−0.045
Gr.....219	5.2	43 49.7	+3.56	+23 51 43.82	+11.169	−0.00435	−0.057
B.....878	5.3	43 51.1	+3.78	+32 48 56.98	+11.207	−0.00461	−0.013
A.....1061	6.1	44 01.7	+3.07	− 0 02 52	+11.21	−0.004	.....
A.....1062	6.4	44 23.0	+3.56	+23 26 19	+11.17	−0.004	−0.02
G.....1186	6.8	44 37.1	+3.56	+23 34 32.00	+11.168	−0.00436	.....
Gr.....220	5.9	44 37.5	+3.52	+21 58 15.52	+11.126	−0.00431	−0.042
Gr.....221	5.4	44 54.1	+3.60	+25 18 30.07	+11.044	−0.00441	−0.103
A.....1069	6.5	45 41.7	+3.04	− 1 47 48	+11.09	−0.004	.....
Green...3619	7.0	46 06.2	+6.91	+73 48 47.23	+11.081	−0.00845	+0.019
B.....886	6.0	46 08.3	+3.83	+34 05 17.56	+11.054	−0.00470	0.000
Gr.....223	6.8	46 19.2	+3.52	+21 45 39.01	+11.020	−0.00433	−0.024
B.....887	5.9	46 24.5	+4.85	+57 42 30.50	+10.956	−0.00596	−0.079
A.....1073	6.5	46 27.0	+3.73	+30 53 59	+11.03	−0.005	.....
Green...4558	6.4	46 46.8	+6.41	+71 33 20.19	+11.015	−0.00786	+0.005
B.....889	6.0	47 07.0	+4.34	+48 22 57.70	+10.964	−0.00535	−0.019
B.....890	5.9	47 12.2	+3.20	+ 6 15 53.50	+10.970	−0.00395	−0.007
B.....891	7.0	47 34.4	+3.04	− 1 25 04.78	+10.936	−0.00376	−0.013
Green...4065	6.8	48 00.0	+6.62	+72 27 39.50	+10.921	−0.00814	.....
B.....892	6.3	48 01.1	+3.43	+17 03 34.27	+10.884	−0.00425	−0.033
B.J.....144	2.9	48 28.3	+3.76	+31 37 01.23	+10.872	−0.00465	−0.011
G.....1201	7.0	48 48.8	+4.53	+52 22 34.90	+10.862	−0.00560	.....
G.....1202	6.6	48 50.6	+4.50	+51 57 32.71	+10.959	−0.00556	+0.101
B.J.....145	5.5	49 27.2	+5.09	+60 50 45.72	+10.795	−0.00629	−0.016
B.....896	5.0	49 28.3	+5.26	+62 48 33.14	+10.812	−0.00651	+0.002
B.....898	5.5	49 29.0	+4.31	+47 36 27.67	+10.785	−0.00535	−0.024
B.....901	4.9	49 46.3	+3.01	− 3 13 13.34	+10.792	−0.00375	+0.004
B.....900	5.5	49 54.5	+4.45	+50 26 07.20	+10.647	−0.00552	−0.130
Green...2094	7.0	50 25.7	+8.36	+77 56 48.10	+10.742	−0.01034	.....
B.....904	5.6	50 40.4	+3.86	+34 49 05.72	+10.711	−0.00479	−0.010
G.....1210	7.0	51 08.3	+4.08	+41 37 10.71	+10.689	−0.00508	.....
Gr.....226	5.8	51 32.8	+3.54	+22 13 09.62	+10.548	−0.00442	−0.112
B.....909	6.3	51 43.5	+3.55	+22 54 53.32	+10.630	−0.00444	−0.013
B.J.....147	3.0	51 48.6	+4.02	+39 45 01.89	+10.608	−0.00501	−0.029
A.....1097	6.3	52 03.3	+3.58	+24 12 06	+10.63	−0.004	.....
A.....1098	6.4	52 14.3	+3.19	+ 5 46 53	+10.61	−0.004	.....
G.....1218	6.5	3 52 29.7	+3.98	+38 34 56.14	+10.589	−0.00497	.....

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		h m s	s	° ′ ″	″	″	″
B.J.....148	4.0	3 53 07.3	+3.89	+35 31 58.41	+10.531	−0.00486	−0.008
G.....1222	6.8	53 40.8	+3.98	+38 33 49.26	+10.502	−0.00499	.....
Green...1201	5.3	54 55.3	+9.86	+80 27 09.34	+10.407	−0.01233	−0.002
Gr.....229	6.3	55 28.2	+3.42	+17 02 34.86	+10.306	−0.00431	−0.061
Gr.....230	5.8	55 37.5	+3.45	+17 56 27.38	+10.318	−0.00437	−0.038
B.J.....150	(3.5)	55 41.5	+3.32	+12 14 11.78	+10.334	−0.00419	−0.013
Gr.....232	6.9	55 52.2	+3.49	+19 56 51.71	+10.251	−0.00441	−0.086
Green...3217	6.8	56 30.7	+7.18	+74 23 27.84	+10.289	−0.00903	.....
Green...3624	6.7	56 31.5	+7.01	+73 45 18.21	+10.288	−0.00882	.....
B.....925	5.9	56 51.4	+3.27	+ 9 44 45.92	+10.256	−0.00414	−0.005
B.....924	5.2	56 56.7	+4.98	+58 54 22.86	+10.260	−0.00628	+0.007
B.....926	5.3	56 58.3	+3.04	− 1 48 04.35	+10.248	−0.00385	−0.004
Green...6352	6.1	57 00.3	+5.98	+68 25 56.16	+10.251	−0.00754	.....
B.....931	5.6	57 59.9	+3.07	− 0 30 45.59	+ 9.929	−0.00392	−0.245
Green...8567	6.1	58 13.1	+5.58	+65 16 32.33	+10.147	−0.00706	−0.014
B.J.....151	3.9	58 22.0	+3.19	+ 5 44 24.42	+10.136	−0.00405	−0.010
Green...3625	6.9	58 52.8	+6.92	+73 19 36.64	+10.147	−0.00876	+0.037
B.....934	5.6	58 58.3	+3.18	+ 5 11 15.44	+10.085	−0.00405	−0.016
Gr.....234	5.7	58 58.6	+3.58	+23 51 31.97	+10.093	−0.00456	−0.010
B.....935	5.7	59 04.1	+3.24	+ 7 56 55.09	+10.106	−0.00415	+0.012
N.A.A.[1] Tauri	4.5	59 22.3	+3.54	+21 50 11.98	+10.010	−0.00452	−0.058
B.....937	5.6	59 27.4	+3.13	+ 2 34 58.71	+ 9.948	−0.00401	−0.116
Gr.....236	6.8	59 30.4	+3.43	+17 16 14.37	+ 9.989	−0.00437	−0.074
G.....1244	6.5	59 35.5	+4.65	+53 46 00.98	+10.056	−0.00591	.....
B.....938	4.4	59 52.4	+4.46	+50 06 27.96	+ 9.995	−0.00567	−0.037
G.....1246	6.2	3 59 53.1	+5.26	+62 05 22.51	+10.035	−0.00668	.....
Gr.....237	6.0	4 00 00.4	+3.55	+21 46 00.21	+ 9.910	−0.00454	−0.115
Gr.....238	5.3	01 05.0	+3.67	+27 21 29.70	+ 9.883	−0.00470	−0.061
B.....944	5.3	01 26.4	+3.70	+28 45 30.83	+ 9.917	−0.00473	+0.003
G.....1258	6.5	01 41.0	+4.62	+53 07 13.14	+ 9.898	−0.00590	.....
G.....1257	5.8	01 49.7	+5.06	+59 40 05.96	+ 9.887	−0.00646	.....
B.J.....152	4.0	02 07.4	+4.34	+47 28 22.63	+ 9.830	−0.00556	−0.032
G.....1262	6.5	02 15.5	+4.72	+54 35 29.73	+ 9.765	−0.00604	−0.090
B.....949	6.3	02 18.2	+3.96	+37 29 31.10	+ 9.662	−0.00505	−0.187
Gr.....239	5.9	02 36.2	+3.39	+14 55 21.18	+ 9.785	−0.00435	−0.044
B.....950	5.7	02 36.4	+3.99	+37 48 17.15	+ 9.622	−0.00513	−0.203
Green...1202	6.6	02 43.6	+9.90	+80 18 17.02	+ 9.820	−0.01263	.....
Gr.....240	6.1	02 50.0	+3.43	+17 05 59.33	+ 9.788	−0.00441	−0.022
Green...4563	6.2	03 40.6	+6.65	+71 53 35.58	+ 9.746	−0.00852	.....
Green...6355	6.4	03 47.8	+6.00	+68 15 58.52	+ 9.736	−0.00770	.....
N.A. ω^1 Tauri	5.8	03 55.3	+3.49	+19 22 18.36	+ 9.678	−0.00450	−0.044
B.....953	6.3	03 59.9	+3.35	+13 09 36.54	+ 9.694	−0.00431	−0.025
A.....1153	6.0	05 12.1	+3.83	+33 21 07	+ 9.63	−0.005	.....
A.E. *p.* Tauri	5.6	05 20.8	+3.65	+26 14 48.18	+ 9.573	−0.00471	−0.037
Gr.....243	6.6	05 29.9	+3.47	+18 11 19.99	+ 9.556	−0.00448	−0.050
B.....961	6.0	06 32.7	+3.19	+ 5 17 21.78	+ 9.536	−0.00415	+0.013
B.....957	5.6	07 14.5	+13.56	+83 35 28.07	+ 9.484	−0.01747	+0.014
Gr.....245	6.3	07 21.5	+3.43	+17 02 46.92	+ 9.449	−0.00445	−0.015
Gr.....246	6.2	07 30.9	+3.55	+22 10 57.84	+ 9.433	−0.00461	−0.019
A.....1162	6.2	4 07 38.4	+4.90	+57 13 53	+ 9.44	−0.006	.....

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		h m s	s	° ′ ″	″	″	″
B.J. Gr...750	6.8	4 07 59.7	+17.50	+85 19 04.19	+ 9.444	−0.02258	+0.033
B.....967	4.3	08 17.1	+4.39	+48 10 52.91	+ 9.362	−0.00570	−0.027
B.....971	5.5	08 42.2	+3.23	+ 7 29 11.37	+ 9.360	−0.00421	+0.003
B.....970	4.9	08 45.6	+4.07	+40 15 23.49	+ 9.326	−0.00529	−0.026
G.....1293	6.6	08 49.1	+3.34	+12 31 30.81	+ 9.351	−0.00435	.....
B.....969	5.7	08 57.2	+5.27	+61 37 29.73	+ 9.335	−0.00684	−0.002
Green...7766	6.9	09 01.0	+5.84	+66 51 53.58	+ 9.334	−0.00758	.....
B.....972	5.0	09 02.6	+3.26	+ 9 02 10.08	+ 9.296	−0.00425	−0.035
A.....1176	6.3	09 03.8	+3.04	− 1 22 42	+ 9.33	−0.004	.....
Green...2836	6.7	09 29.8	+7.79	+75 53 08.57	+ 9.280	−0.01010	−0.018
B.....973	6.0	09 40.9	+4.95	+57 38 11.73	+ 9.250	−0.00644	−0.031
B.....975	5.3	09 41.0	+3.28	+ 9 47 03.28	+ 9.240	−0.00428	−0.041
B.....974	5.3	09 41.5	+4.67	+53 23 11.58	+ 9.276	−0.00607	−0.004
Green....549	5.7	10 07.6	+12.88	+83 07 34.15	+ 9.344	−0.01671	+0.095
G.....1304	7.0	10 38.4	+3.19	+ 5 58 36.80	+ 9.059	−0.00417	−0.150
A.E. μ. Tauri	4.3	10 38.8	+3.26	+ 8 40 03.23	+ 9.182	−0.00427	−0.020
Gr.....249	6.4	10 39.6	+3.40	+15 10 33.73	+ 9.199	−0.00446	−0.010
Green...1204	5.5	11 20.3	+10.27	+80 36 40.41	+ 9.135	−0.01336	−0.021
B.....986	4.7	11 28.3	+4.50	+50 04 29.98	+ 9.088	−0.00588	−0.054
A.....1187	6.4	11 54.0	+4.14	+41 55 15	+ 9.12	−0.005	.....
Gr.....251	4.8	11 59.1	+3.51	+20 21 27.09	+ 9.066	−0.00460	−0.038
B.....988	5.6	12 11.8	+5.61	+64 55 18.62	+ 9.086	−0.00734	0.000
B.....990	5.7	12 27.6	+4.49	+49 49 48.48	+ 9.014	−0.00588	−0.051
Gr.....252	5.6	13 03.5	+3.55	+21 21 36.41	+ 8.992	−0.00467	−0.029
B.....992	5.6	13 22.1	+4.53	+50 42 11.04	+ 8.997	−0.00594	+0.003
B.....993	5.8	13 57.5	+5.20	+60 31 20.94	+ 8.841	−0.00683	−0.107
G.....1318	6.6	14 01.2	+4.13	+41 35 29.33	+ 8.946	−0.00543	.....
Gr.....253	5.4	14 07.7	+3.53	+20 55 30.88	+ 8.900	−0.00465	−0.038
Gr.....254	5.3	14 16.9	+3.55	+21 33 23.92	+ 8.892	−0.00467	−0.033
A.....1202	6.3	14 26.0	+3.81	+31 44 11	+ 8.91	−0.005	.....
G.....1320	5.9	14 32.0	+4.87	+56 17 27.29	+ 8.905	−0.00640	.....
B.J.....158	5.3	14 33.8	+3.89	+34 21 00.50	+ 8.894	−0.00511	−0.006
B.J.....159	3.7	14 40.2	+3.41	+15 24 39.14	+ 8.863	−0.00451	−0.029
A.....1207	6.4	14 41.8	+3.28	+ 9 54 18	+ 8.89	−0.004	.....
Gr.....257	5.1	14 48.9	+3.69	+27 08 09.88	+ 8.818	−0.00485	−0.066
B.....1004	5.8	14 53.5	+3.38	+13 49 07.04	+ 8.846	−0.00446	−0.028
B.....1003	4.9	15 02.4	+4.33	+46 17 04.41	+ 8.825	−0.00570	−0.038
Gr.....258	6.0	15 11.2	+3.47	+18 31 38.81	+ 8.854	−0.00458	.....
G.....1326	6.0	15 16.0	+5.10	+59 24 13.91	+ 8.849	−0.00671	.....
Gr.....259	5.3	15 30.0	+3.40	+14 52 49.25	+ 8.816	−0.00450	−0.013
A.....1217	6.4	15 48.7	+3.37	+13 38 59	+ 8.79	−0.004	−0.02
B.....1008	6.0	15 53.3	+3.20	+ 5 54 59.96	+ 8.746	−0.00423	−0.051
G.....1334	7.0	16 28.5	+3.97	+36 41 34.88	+ 8.752	−0.00525	.....
B.....1013	5.9	16 59.1	+3.38	+13 51 53.61	+ 8.679	−0.00449	−0.031
Gr.....260	6.1	17 04.9	+3.53	+20 36 32.69	+ 8.703	−0.00467	−0.001
Gr.....261	5.7	17 06.1	+3.65	+25 25 03.90	+ 8.675	−0.00483	−0.028
G.....1337	6.7	17 18.6	+4.60	+51 43 38.02	+ 8.687	−0.00608	.....
G.....1340	6.5	17 19.6	+4.17	+42 13 05.43	+ 8.686	−0.00552	.....
G.....1343	6.5	17 39.9	+3.94	+35 41 33.98	+ 8.659	−0.00522	.....
B.J.....162	3.8	4 17 44.6	+3.46	+17 19 55.36	+ 8.619	−0.00459	−0.031

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		h m s	s	° ′ ″	″	″	″
Gr.....264	5.9	4 18 14.1	+3.53	+20 46 22.44	+ 8.582	−0.00468	−0.031
Gr.....265	5.7	18 15.1	+3.44	+16 34 04.35	+ 8.581	−0.00458	−0.032
Gr.....266	6.2	18 34.0	+3.61	+24 05 31.82	+ 8.567	−0.00480	−0.020
B.....1020	5.9	18 38.5	+3.89	+33 55 21.95	+ 8.527	−0.00516	−0.052
B.....1021	6.1	18 47.1	+3.88	+33 45 10.79	+ 8.485	−0.00516	−0.082
Gr.....267	4.8	18 54.3	+3.45	+17 14 09.56	+ 8.542	−0.00460	−0.020
B.....1023	5.3	18 57.3	+3.27	+ 9 15 07.58	+ 8.548	−0.00435	−0.007
B.....1024	5.4	19 11.9	+2.99	− 3 57 10.66	+ 8.483	−0.00397	−0.052
A.....1239	6.5	19 32.1	+4.96	+57 22 50	+ 8.51	−0.007	.....
Gr.....268	6.0	19 42.3	+3.49	+18 50 08.52	+ 8.438	−0.00466	−0.060
Gr.....269	4.4	20 00.2	+3.57	+22 05 18.49	+ 8.421	−0.00477	−0.054
Gr.....270	5.4	20 03.2	+3.57	+21 59 41.54	+ 8.420	−0.00477	−0.051
G.....1359	6.7	20 04.1	+4.61	+51 47 51.39	+ 8.469	−0.00613	.....
B.....1029	4.4	20 16.8	+3.47	+17 43 21.95	+ 8.425	−0.00463	−0.025
B.....1030	5.4	20 22.4	+3.81	+31 14 11.12	+ 8.322	−0.00509	−0.120
Green...5650	7.0	20 24.1	+6.26	+69 10 39.54	+ 8.443	−0.00832	.....
B.....1031	6.8	20 28.9	+3.42	+15 44 08.86	+ 8.404	−0.00457	−0.029
Gr.....273	4.4	20 55.2	+3.59	+22 36 36.03	+ 8.367	−0.00479	−0.034
Gr.....274	4.6	21 12.9	+3.41	+15 24 52.50	+ 8.364	−0.00457	−0.014
A.....1251	6.5	21 28.1	+3.25	+ 8 23 12	+ 8.36	−0.004	.....
Gr.....275	4.9	21 31.2	+3.39	+14 30 39.14	+ 8.331	−0.00453	−0.023
Gr.....276	5.4	21 54.4	+3.58	+22 47 38.65	+ 8.320	−0.00479	−0.003
A.....1254	6.4	22 19.8	+3.11	+ 1 52 42	+ 8.29	−0.004	.....
A.....1256	6.2	22 30.6	+3.31	+11 00 39	+ 8.28	−0.004	.....
Gr.....277	5.7	22 40.1	+3.56	+21 25 10.58	+ 8.186	−0.00477	−0.076
Green...4076	6.0	23 03.7	+6.91	+72 20 08.14	+ 8.157	−0.00922	−0.073
A.....1259	6.6	23 10.8	+3.78	+30 09 44	+ 8.22	−0.005	.....
B.....1043	6.1	23 17.4	+3.40	+14 32 28.79	+ 8.189	−0.00457	−0.021
Gr.....278	5.3	23 17.5	+3.43	+16 09 32.06	+ 8.237	−0.00459	+0.025
B.J.....164	3.5	23 21.6	+3.50	+18 58 53.30	+ 8.169	−0.00470	−0.035
A.....1265	6.4	23 23.5	+3.11	+ 1 39 28	+ 8.21	−0.004	.....
Gr.....280	4.0	23 25.9	+3.42	+15 45 47.24	+ 8.187	−0.00460	−0.015
Gr.....281	3.6	23 31.4	+3.42	+15 40 19.49	+ 8.191	−0.00460	−0.003
Gr.....282	6.6	23 46.2	+3.70	+27 12 22.19	+ 8.140	−0.00496	−0.035
B.....1047	5.2	23 47.6	+3.36	+12 50 55.11	+ 8.152	−0.00452	−0.018
Gr.....283	6.6	23 50.7	+3.43	+15 57 37.66	+ 8.123	−0.00460	−0.045
B.....1048	5.7	23 53.0	+3.11	+ 1 10 54.37	+ 8.135	−0.00416	−0.027
Green...7034	6.9	24 02.3	+6.01	+67 26 14.46	+ 8.153	−0.00804	0.000
Gr.....284	6.6	24 43.6	+3.73	+27 56 02.51	+ 8.129	−0.00501	+0.031
A.....1272	6.4	24 51.7	+3.84	+32 15 44	+ 8.09	−0.005	.....
B.J.....165	6.3	24 53.8	+4.74	+53 42 57.78	+ 8.082	−0.00635	0.000
Green..10085	7.0	24 54.3	+5.58	+63 58 31.84	+ 8.082	−0.00748	.....
B.....1051	5.9	25 00.6	+3.42	+15 26 31.19	+ 8.061	−0.00461	−0.012
Gr.....286	4.8	25 24.4	+3.43	+15 59 55.23	+ 8.023	−0.00463	−0.020
Gr.....287	5.5	25 30.8	+3.42	+15 29 48.37	+ 8.017	−0.00461	−0.018
B.....1056	5.6	25 33.3	+3.37	+13 31 45.30	+ 8.009	−0.00455	−0.020
B.....1057	6.8	26 00.6	+3.40	+14 54 41.85	+ 7.942	−0.00459	−0.050
Gr.....288	6.0	26 43.2	+3.42	+15 39 32.66	+ 7.912	−0.00463	−0.026
A.E. m. Persei	6.1	27 04.8	+4.21	+42 52 20.76	+ 7.911	−0.00568	+0.001
B.....1063	5.1	4 27 16.3	+3.07	− 0 14 11.29	+ 7.889	−0.00414	−0.003

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....1064	6.0	4 27 57.6	+5.60	+64 04 27.77	+ 7.822	−0.00755	−0.015
A.....1290	5.7	28 07.3	+3.00	− 3 23 59	+ 7.83	−0.004	.....
Gr.....290	7.0	28 20.5	+3.47	+17 49 38.15	+ 7.777	−0.00470	−0.031
G.....1403	7.0	28 43.2	+3.36	+13 03 46.76	+ 7.777	−0.00455	.....
B.....1067	4.8	28 44.4	+3.40	+14 39 20.96	+ 7.747	−0.00462	−0.026
A.....1294	6.3	28 53.4	+3.27	+ 9 13 32	+ 7.77	−0.004	.....
Gr.....291	5.7	28 59.9	+3.75	+28 46 25.00	+ 7.734	−0.00508	−0.020
B.....1069	6.0	29 21.1	+3.19	+ 5 22 49.25	+ 7.703	−0.00431	−0.021
Gr.....292	6.6	30 25.9	+3.51	+19 41 47.93	+ 7.658	−0.00477	+0.018
Green...1500	6.6	30 26.4	+9.73	+79 28 50.83	+ 7.636	−0.01315	.....
B.....1074	4.4	30 27.1	+4.15	+41 04 50.11	+ 7.611	−0.00562	−0.024
B.....1076	4.4	30 42.5	+3.29	+ 9 58 35.72	+ 7.565	−0.00448	−0.049
B.J.....168	1.0	30 45.3	+3.44	+16 19 44.35	+ 7.422	−0.00468	−0.189
Gr.....294	6.0	31 03.8	+3.61	+23 09 28.47	+ 7.562	−0.00490	−0.025
B.....1078	6.7	31 32.3	+2.99	− 3 47 45.53	+ 7.514	−0.00406	−0.032
B.J.....169	3.8	31 49.3	+3.00	− 3 32 09.37	+ 7.519	−0.00408	−0.004
G.....1427	7.0	32 35.2	+4.19	+42 03 39.20	+ 7.464	−0.00570	.....
B.....1084	5.5	32 35.3	+3.09	+ 0 48 59.11	+ 7.448	−0.00421	−0.014
B.....1082	5.4	32 49.1	+4.71	+52 54 03.75	+ 7.425	−0.00641	−0.018
B.....1083	5.6	32 49.9	+4.74	+53 17 48.02	+ 7.351	−0.00646	−0.090
Gr.....296	5.7	32 57.2	+3.54	+20 30 15.76	+ 7.424	−0.00482	−0.010
Gr.....297	5.8	33 00.2	+3.43	+15 51 12.76	+ 7.419	−0.00469	−0.011
B.....1088	5.5	33 04.3	+3.02	− 2 39 10.26	+ 7.373	−0.00412	−0.050
B.....1087	4.5	33 07.5	+3.35	+12 19 51.14	+ 7.408	−0.00459	−0.010
Green...2473	6.7	33 30.6	+8.25	+76 26 32.85	+ 7.250	−0.01121	−0.140
A.....1323	6.4	33 53.7	+3.65	+25 02 25	+ 7.36	−0.005	.....
G.....1433	6.2	33 58.3	+4.14	+40 36 43.51	+ 7.350	−0.00565	.....
Gr.....298	5.2	34 00.8	+3.42	+15 37 23.54	+ 7.282	−0.00468	−0.066
Gr.....299	4.9	34 07.5	+3.43	+15 44 25.19	+ 7.317	−0.00469	−0.022
B.....1092	5.6	34 13.6	+3.25	+ 7 41 33.72	+ 7.328	−0.00444	−0.001
B.....1093	5.9	34 41.0	+4.47	+48 07 36.13	+ 7.257	−0.00610	−0.034
B.....1097	5.8	35 02.7	+3.34	+12 01 16.22	+ 7.235	−0.00457	−0.026
A.....1332	6.2	35 12.7	+3.05	− 1 13 43	+ 7.25	−0.004	.....
Gr.....301	5.7	35 41.6	+3.75	+28 26 28.30	+ 7.164	−0.00514	−0.047
A.....1334	6.1	35 42.9	+4.07	+38 06 33	+ 7.20	−0.006	0.00
B.....1102	6.0	36 30.9	+4.55	+49 48 09.12	+ 7.115	−0.00623	−0.027
B.....1103	5.4	36 31.1	+4.25	+43 11 39.99	+ 7.092	−0.00583	−0.050
B.J.....173	6.2	36 42.2	+8.01	+75 46 43.86	+ 6.993	−0.01097	−0.133
B.J.....174	4.2	36 50.5	+3.60	+22 47 05.76	+ 7.096	−0.00494	−0.019
B.....1109	6.4	37 46.7	+3.63	+23 55 08.08	+ 7.010	−0.00499	−0.028
A.....1344	6.3	37 59.0	+4.15	+40 37 05	+ 7.02	−0.006	.....
Green...7043	7.0	39 05.0	+6.12	+67 36 05.41	+ 6.833	−0.00840	−0.100
B.....1114	5.5	39 26.5	+3.32	+10 58 44.43	+ 6.888	−0.00458	−0.014
A.....1351	6.5	40 16.4	+3.62	+23 27 49	+ 6.84	−0.005	.....
B.J.....175	5.5	40 30.1	+4.98	+56 35 53.67	+ 6.669	−0.00687	−0.146
Green...5110	6.4	40 31.4	+6.68	+70 46 55.28	+ 6.800	−0.00919	−0.014
A.....1354	6.2	40 31.7	+4.13	+40 08 59	+ 6.81	−0.006	.....
B.J.....176	3.8	41 00.1	+3.00	− 3 25 08.69	+ 6.762	−0.00414	−0.012
B.....1122	5.6	41 01.3	+3.33	+11 32 29.94	+ 6.771	−0.00460	−0.001
B.....1120	6.4	4 41 01.4	+3.50	+18 34 21.16	+ 6.709	−0.00484	−0.063

Star Catalogue and Number	Magnitude	Mean Right Ascension, 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....1469	7.0	4 41 21.2	+4.35	+45 19 42.39	+ 6.747	−0.00600	.....
A.....1361	6.3	41 53.5	+3.00	− 3 06 56	+ 6.70	−0.004	.....
B.....1129	5.9	43 26.6	+3.84	+31 16 53.44	+ 6.460	−0.00532	−0.113
Green....975	5.3	43 27.9	+11.08	+81 02 47.98	+ 6.615	−0.01530	+0.042
A.....1368	6.2	43 29.5	+3.87	+32 25 52	+ 6.57	−0.005	.....
B.....1128	5.9	43 39.5	+5.60	+63 21 09.56	+ 6.459	−0.00775	−0.096
B.....1133	5.2	43 51.0	+4.03	+37 19 48.00	+ 6.568	−0.00558	+0.029
A.....1372	6.2	44 01.1	+3.15	+ 3 25 50	+ 6.53	−0.004	.....
B.....1134	6.0	44 23.1	+4.50	+48 35 09.55	+ 6.443	−0.00623	−0.052
Gr.....306	6.3	44 35.0	+3.43	+15 44 52.02	+ 6.469	−0.00476	−0.010
N.A. π^1 Orionis.	3.3	44 57.2	+3.25	+ 6 48 17.56	+ 6.469	−0.00456	+0.024
B.J.....178	4.3	45 05.7	+5.94	+66 11 27.45	+ 6.446	−0.00823	+0.010
G.....1483	6.5	45 06.1	+4.41	+45 41 37.83	+ 5.878	−0.00612	−0.560
B.....1141	4.5	45 42.3	+3.27	+ 8 44 46.82	+ 6.353	−0.00454	−0.032
G.....1485	6.9	45 46.3	+4.38	+45 47 19.62	+ 6.381	−0.00608	.....
G.....1488	6.4	46 02.4	+4.74	+52 41 24.78	+ 6.359	−0.00658	.....
A.E. *i* Tauri	5.1	46 06.5	+3.51	+18 41 14.51	+ 6.317	−0.00488	−0.036
B.J.....179	3.7	46 24.7	+3.19	+ 5 27 06.31	+ 6.319	−0.00444	−0.007
B.....1146	5.8	46 26.2	+4.23	+42 26 06.28	+ 6.318	−0.00589	−0.006
B.....1148	5.0	46 36.4	+4.01	+36 33 05.74	+ 6.288	−0.00558	−0.022
A.....1388	6.5	46 45.0	+3.38	+13 30 13	+ 6.30	−0.005	.....
A.....1389	6.4	46 46.8	+3.29	+ 9 49 22	+ 6.29	−0.005	.....
A.....1390	6.2	47 09.6	+3.74	+27 44 52	+ 6.27	−0.005	.....
B.....1149	5.1	47 26.4	+3.39	+14 06 04.59	+ 6.182	−0.00472	−0.059
B.....1150	5.8	47 41.5	+4.89	+55 06 41.06	+ 6.213	−0.00681	−0.007
Gr.....311	6.7	48 08.2	+3.62	+23 10 00.11	+ 6.184	−0.00505	−0.001
A.....1394	6.3	48 23.5	+4.30	+43 54 56	+ 6.16	−0.006	.....
B.....1154	5.8	48 41.1	+3.13	+ 2 21 36.01	+ 6.117	−0.00436	−0.020
Green...8588	6.8	48 45.4	+5.82	+65 08 06.52	+ 6.133	−0.00811	.....
B.....1155	6.0	48 59.0	+4.75	+52 43 26.24	+ 6.115	−0.00662	+0.002
B.J.....180	3.7	49 33.7	+3.12	+ 2 17 37.86	+ 6.061	−0.00436	−0.003
B.....1160	5.4	49 47.3	+3.33	+11 16 46.17	+ 6.070	−0.00464	+0.024
B.....1162	5.7	49 55.7	+3.24	+ 7 38 02.52	+ 6.006	−0.00453	−0.028
B.....1163	4.8	49 56.4	+3.30	+10 00 29.59	+ 5.899	−0.00462	−0.134
B.....1161	4.5	50 04.1	+4.80	+53 36 32.07	+ 6.029	−0.00670	+0.007
A.....1407	6.3	50 13.4	+3.08	+ 0 19 18	+ 6.01	−0.004	.....
A.....1405	6.3	50 19.6	+4.00	+36 01 30	+ 6.00	−0.006	.....
B.....1165	6.0	50 42.8	+3.41	+14 53 48.15	+ 5.948	−0.00477	−0.020
Gr.....313	6.3	50 46.6	+3.65	+24 26 57.01	+ 5.933	−0.00511	−0.032
Green...3232	6.2	50 54.1	+7.57	+74 07 53.28	+ 5.991	−0.01058	+0.037
B.J.....181	2.7	51 07.8	+3.90	+33 01 27.60	+ 5.913	−0.00546	−0.020
B.....1169	4.4	51 18.5	+3.37	+13 22 21.71	+ 5.858	−0.00471	−0.061
Gr.....315	5.7	52 10.3	+3.46	+17 00 47.65	+ 5.838	−0.00485	−0.010
Gr.....316	6.0	52 20.9	+3.64	+23 48 31.88	+ 5.799	−0.00509	−0.035
B.....1176	6.5	52 35.9	+4.77	+53 01 04.58	+ 5.799	−0.00668	−0.012
B.....1177	5.9	52 38.8	+3.67	+24 54 43.31	+ 5.747	−0.00515	−0.060
A.....1421	6.2	52 43.3	+3.05	− 1 12 24	+ 5.81	−0.004	.....
Green...3640	6.8	52 59.3	+7.44	+73 37 54.35	+ 5.772	−0.01041	−0.008
B.....1178	5.1	53 08.7	+4.07	+37 45 17.55	+ 5.661	−0.00571	−0.104
Green...3641	6.0	4 53 18.2	+7.52	+73 56 07.98	+ 5.729	−0.01053	−0.024

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		h m s	s	° ′ ″	″	″	″
A.....1423	6.2	4 53 30.2	+5.38	+60 56 58	+ 5.73	−0.008	.....
A.....1425	6.4	53 38.9	+3.02	− 2 21 06	+ 5.73	−0.004	.....
B.....1179	6.5	53 42.8	+6.06	+66 41 52.47	+ 5.370	−0.00851	−0.347
A.....1428	6.5	53 52.9	+3.40	+14 24 21	+ 5.70	−0.005	.....
B.....1181	4.7	53 53.0	+3.11	+ 1 34 35.15	+ 5.698	−0.00436	−0.005
B.....1182	6.1	54 07.0	+4.12	+39 15 32.93	+ 5.686	−0.00578	+0.003
B.....1183	6.9	54 10.9	+4.13	+39 31 09.77	+ 5.687	−0.00580	+0.009
B.....1184	7.0	54 34.4	+3.44	+15 46 53.91	+ 5.612	−0.00484	−0.034
B.J.....182	4.1	55 24.4	+5.32	+60 18 42.16	+ 5.564	−0.00747	−0.012
B.J.....183	(3.2)	55 30.5	+4.30	+43 41 27.28	+ 5.553	−0.00605	−0.014
A.....1441	6.3	56 07.7	+3.02	− 2 11 57	+ 5.52	−0.004	.....
A.E. ζ Aurigae	3.9	56 11.1	+4.19	+40 56 43.17	+ 5.488	−0.00590	−0.030
Green...6376	6.8	56 28.0	+6.39	+68 50 45.82	+ 5.477	−0.00899	−0.011
G.....1536	6.8	56 59.7	+4.20	+41 18 44.53	+ 5.443	−0.00592	.....
G.....1540	6.2	57 12.4	+3.09	+ 0 35 31.10	+ 5.425	−0.00436	.....
B.J.....184	4.8	57 42.9	+3.58	+21 27 43.57	+ 5.339	−0.00506	−0.043
A.....1451	6.0	58 17.3	+2.98	− 4 20 19	+ 5.34	−0.004	.....
B.....1195	5.3	58 18.8	+5.20	+58 50 51.16	+ 5.324	−0.00733	−0.007
A.....1449	6.0	58 21.2	+5.40	+61 02 53	+ 5.32	−0.008	.....
B.....1196	6.5	58 22.1	+5.21	+58 53 49.07	+ 5.288	−0.00734	−0.038
G.....1545	6.6	58 46.5	+4.45	+46 47 28.86	+ 5.294	−0.00628	.....
A.....1455	6.4	58 59.7	+3.57	+21 09 09	+ 5.27	−0.005	.....
A.E. 11 Orionis.	4.6	59 25.5	+3.43	+15 16 46.01	+ 5.201	−0.00484	−0.036
B.....1202	5.0	59 37.6	+4.69	+51 28 44.18	+ 5.043	−0.00663	−0.177
Green...5677	6.6	59 45.5	+6.54	+69 31 16.09	+ 5.130	−0.00923	−0.080
B.....1191	6.8	4 59 45.8	+20.86	+85 50 39.23	+ 5.141	−0.02944	−0.067
B.J.....185	3.3	5 00 12.1	+4.20	+41 06 48.74	+ 5.100	−0.00595	−0.071
Gr.....324	6.5	00 13.7	+3.53	+19 41 00.68	+ 5.153	−0.00500	−0.018
Gr.....325	6.6	00 19.1	+3.71	+26 18 24.69	+ 5.142	−0.00525	−0.021
G.....1555	7.0	00 23.8	+4.28	+43 03 09.70	+ 5.156	−0.00605	.....
A.....1465	6.0	00 24.3	+3.00	− 3 09 50	+ 5.16	−0.004	.....
G.....1559	6.5	00 44.7	+3.10	+ 1 03 15.19	+ 5.126	−0.00439	.....
B.....1206	5.6	01 00.7	+7.52	+73 49 54.78	+ 5.071	−0.01065	−0.032
Green...2478	6.3	01 54.5	+8.41	+76 21 38.53	+ 5.030	−0.01189	0.000
Gr.....327	5.0	02 07.8	+3.54	+18 31 29.46	+ 5.032	−0.00507	+0.022
B.....1213	5.4	02 18.6	+2.97	− 4 46 30.78	+ 5.001	−0.00420	+0.008
Gr.....328	5.3	02 28.8	+3.55	+20 18 01.21	+ 4.952	−0.00502	−0.029
Gr.....329	6.0	02 32.4	+3.58	+21 35 10.97	+ 4.978	−0.00508	+0.003
Gr.....330	5.5	02 37.5	+3.65	+24 08 48.48	+ 4.946	−0.00518	−0.021
B.....1217	6.5	02 42.4	+3.29	+ 9 21 45.22	+ 4.578	−0.00466	−0.381
B.....1219	5.5	02 58.8	+3.27	+ 8 22 54.46	+ 4.875	−0.00463	−0.061
A.E. β Eridani	2.9	03 25.5	+2.95	− 5 12 07.69	+ 4.824	−0.00418	−0.079
Gr.....332	6.6	03 31.7	+3.54	+19 44 37.58	+ 4.895	−0.00502	+0.003
B.....1222	5.8	04 00.6	+4.46	+46 51 05.61	+ 4.692	−0.00634	−0.157
Gr.....333	6.0	04 05.9	+3.76	+27 55 01.97	+ 4.843	−0.00534	.....
A.....1486	6.2	04 13.3	+4.06	+37 11 18	+ 4.83	−0.006	.....
B.....1224	5.4	04 16.0	+2.97	− 4 34 21.17	+ 4.850	−0.00422	+0.023
B.....1226	5.7	04 22.5	+3.30	+ 9 42 52.16	+ 4.811	−0.00469	−0.006
B.....1227	5.0	04 32.8	+3.43	+15 28 58.89	+ 4.793	−0.00487	−0.010
A.....1491	6.4	5 04 47.7	+5.48	+61 44 20	+ 4.78	−0.008	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....1229	6.7	5 05 08.4	+5.57	+62 34 53.18	+ 4.766	−0.00790	+0.013
G.....1581	6.4	05 27.9	+3.06	− 0 40 37.51	+ 4.726	−0.00436	.....
A.....1497	6.3	06 25.7	+3.03	− 2 21 39	+ 4.53	−0.004	−0.12
Gr.....334	5.4	06 31.4	+3.44	+15 56 06.40	+ 4.641	−0.00490	+0.005
A.....1500	6.1	06 47.2	+3.01	− 2 36 05	+ 4.62	−0.004	.....
B.....1233	5.8	07 06.7	+7.38	+73 09 57.58	+ 4.549	−0.01050	−0.036
A.....1503	6.1	07 06.8	+3.09	+ 0 55 39	+ 4.59	−0.004	.....
B.J.....192	5.1	07 16.1	+4.10	+38 22 43.10	+ 4.493	−0.00584	−0.079
A.....1501	6.4	07 16.2	+5.26	+59 18 02	+ 4.58	−0.007	.....
G.....1586	6.2	07 30.8	+4.81	+53 06 28.25	+ 4.551	−0.00685	.....
B.J.....191	5.1	07 42.2	+9.82	+79 07 46.86	+ 4.695	−0.01393	+0.160
B.....1240	4.6	08 35.1	+3.14	+ 2 45 16.23	+ 4.444	−0.00447	−0.015
B.....1244	5.2	09 32.7	+3.91	+32 35 02.85	+ 4.386	−0.00557	+0.009
B.....1247	6.0	09 57.0	+3.19	+ 5 03 09.06	+ 4.358	−0.00455	+0.015
B.J.....193	1.0	10 02.3	+4.43	+45 54 26.35	+ 3.908	−0.00634	−0.428
B.....1248	6.4	10 03.0	+3.60	+22 10 57.03	+ 4.320	−0.00514	−0.015
Green...4594	6.8	10 06.1	+7.00	+71 37 05.01	+ 4.331	−0.00997	.....
B.....1249	6.0	10 21.4	+3.96	+34 12 35.33	+ 4.337	−0.00565	+0.029
A.....1525	6.2	10 45.3	+3.04	− 1 30 43	+ 4.28	−0.004	.....
B.....1252	5.8	11 04.0	+3.33	+11 14 26.19	+ 4.238	−0.00476	−0.009
Green...7797	6.6	11 30.0	+6.10	+66 39 02.75	+ 4.212	−0.00871	.....
Gr.....339	6.9	11 33.9	+3.79	+28 48 21.30	+ 4.165	−0.00542	−0.040
B.....1253	6.4	11 41.9	+5.17	+58 01 16.37	+ 4.166	−0.00739	−0.027
B.....1256	6.0	11 50.0	+4.28	+42 41 42.79	+ 4.163	−0.00613	−0.019
B.....1255	6.0	11 58.3	+5.59	+62 33 29.96	+ 4.149	−0.00800	−0.021
Green...1811	6.8	11 58.9	+9.41	+78 19 31.84	+ 4.193	−0.01344	+0.024
B.....1258	4.7	12 16.2	+3.94	+33 16 41.52	+ 3.969	−0.00564	−0.176
A.....1535	6.3	12 23.2	+4.18	+40 22 08	+ 4.19	−0.006	+0.06
A.E.λ Aurigae	4.8	12 48.5	+4.22	+40 01 11.69	+ 3.439	−0.00611	−0.657
B.....1260	5.5	13 04.6	+3.94	+33 39 11.99	+ 4.032	−0.00565	−0.043
Green....258	6.7	13 12.2	+20.06	+85 35 57.68	+ 4.069	−0.02866	+0.004
G.....1618	7.0	13 30.1	+4.35	+44 19 54.80	+ 4.041	−0.00623	.....
Green...3650	7.0	13 39.2	+7.53	+73 37 07.64	+ 4.027	−0.01077	.....
Gr.....342	5.1	13 52.1	+3.60	+22 00 15.00	+ 3.927	−0.00516	−0.082
Gr.....343	6.2	13 55.2	+3.55	+20 02 26.90	+ 3.975	−0.00508	−0.029
B.....1265	5.6	13 55.4	+4.21	+40 59 39.29	+ 3.939	−0.00603	−0.064
B.....1268	5.2	14 04.9	+3.95	+33 51 52.67	+ 3.973	−0.00566	−0.016
B.....1271	5.5	14 29.5	+3.13	+ 2 30 10.64	+ 3.897	−0.00448	−0.057
Green...1814	6.8	14 40.3	+9.36	+78 13 09.25	+ 3.859	−0.01340	−0.080
Gr.....345	6.6	14 59.8	+3.54	+19 29 11.58	+ 3.905	−0.00508	−0.008
A.....1551	6.3	15 01.8	+3.04	− 1 30 18	+ 3.91	−0.004	.....
Gr.....346	6.3	15 20.2	+3.76	+27 52 00.34	+ 3.867	−0.00539	−0.015
B.....1274	5.3	15 26.1	+4.24	+41 42 55.84	+ 3.836	−0.00608	−0.037
Gr.....347	5.7	15 29.1	+3.81	+29 28 45.26	+ 3.859	−0.00547	−0.011
Green...2110	6.7	15 33.4	+9.19	+77 53 46.66	+ 3.864	−0.01318	.....
Gr.....348	6.4	15 37.5	+3.54	+19 43 26.04	+ 3.834	−0.00508	−0.024
B.....1276	5.3	15 45.2	+5.13	+57 27 28.21	+ 3.785	−0.00737	−0.061
B.....1280	5.7	16 31.0	+4.21	+40 56 29.32	+ 3.783	−0.00604	+0.002
Green...5120	7.0	16 41.2	+6.71	+70 08 44.25	+ 3.767	−0.00963	.....
B.....1282	6.0	5 16 49.5	+3.27	+ 8 20 23.89	+ 3.754	−0.00469	0.000

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
Green...3236	6.9	5 16 51.8	+7.73	+74 13 36.47	+ 3.742	−0.01109	−0.009
B.....1283	5.8	16 56.2	+3.06	− 0 30 18.79	+ 3.748	−0.00439	+0.003
N.A.*o*.Orionis.	4.6	17 10.0	+3.06	− 0 28 14.30	+ 3.728	−0.00440	+0.005
B.....1288	6.7	17 40.8	+3.80	+28 51 05.98	+ 3.650	−0.00546	−0.030
B.....1289	5.2	18 06.1	+3.15	+ 3 27 29.78	+ 3.638	−0.00453	−0.007
B.....1291	6.3	18 25.8	+3.46	+16 36 53.34	+ 3.587	−0.00498	−0.029
B.....1292	5.3	18 32.0	+4.07	+37 18 06.52	+ 3.580	−0.00585	−0.027
G.....1639	6.4	18 50.3	+3.87	+31 08 26.62	+ 3.582	−0.00557	.....
B.....1293	6.1	18 50.4	+3.86	+31 03 35.98	+ 3.571	−0.00555	−0.009
B.....1295	5.8	19 06.1	+3.07	− 0 14 38.13	+ 3.557	−0.00441	−0.001
Gr.....349	5.1	19 10.3	+3.50	+17 18 01.60	+ 3.560	−0.00506	+0.006
A.....1581	6.1	19 16.8	+3.05	− 0 57 02	+ 3.55	−0.004	.....
B.....1300	5.3	19 54.3	+3.05	− 0 58 37.95	+ 3.614	−0.00439	+0.125
B.J.....200	3.3	19 57.1	+3.02	− 2 28 45.67	+ 3.486	−0.00434	+0.001
B.....1302	4.9	20 04.5	+3.11	+ 1 45 51.72	+ 3.456	−0.00448	−0.018
B.J.....201	1.7	20 18.2	+3.22	+ 6 16 07.37	+ 3.434	−0.00463	−0.020
B.J.....202	1.8	20 36.1	+3.79	+28 31 55.85	+ 3.252	−0.00546	−0.177
A.....1592	6.3	20 51.1	+3.97	+34 18 46	+ 3.41	−0.006	.....
A.....1593	6.4	20 53.5	+4.01	+35 22 44	+ 3.40	−0.006	.....
B.....1307	6.5	20 53.6	+3.47	+16 37 14.81	+ 3.396	−0.00499	−0.008
A.....1596	6.2	20 55.7	+3.06	− 0 37 28	+ 3.41	−0.004	.....
A.....1594	6.3	20 56.8	+3.93	+33 11 03	+ 3.40	−0.006	.....
G.....1648	6.8	21 05.4	+4.54	+48 09 01.23	+ 3.387	−0.00654	.....
G.....1650	6.8	21 10.6	+4.31	+43 17 25.54	+ 3.380	−0.00621	.....
B.....1310	5.9	21 22.6	+3.84	+30 07 51.00	+ 3.344	−0.00552	−0.019
B.J.....203	5.9	21 40.0	+5.66	+62 59 35.19	+ 3.336	−0.00815	−0.001
B.....1311	5.4	21 40.8	+3.98	+34 23 59.42	+ 3.280	−0.00573	−0.056
Gr.....353	5.3	21 55.0	+3.50	+17 53 08.40	+ 3.314	−0.00504	−0.003
A.....1603	6.5	22 05.1	+3.43	+15 10 52	+ 3.30	−0.005	.....
B.....1314	4.7	22 07.2	+3.14	+ 3 01 05.18	+ 3.286	−0.00453	−0.013
Gr.....354	4.8	22 13.7	+3.60	+21 51 38.26	+ 3.295	−0.00519	+0.006
B.....1318	5.7	22 35.3	+3.45	+15 47 55.19	+ 3.228	−0.00497	−0.030
G.....1659	7.0	22 36.2	+4.27	+42 11 48.55	+ 3.257	−0.00616	.....
G.....1656	6.9	22 36.8	+4.85	+53 21 30.06	+ 3.256	−0.00699	.....
Gr.....355	6.0	22 48.2	+3.48	+17 09 52.74	+ 3.163	−0.00502	−0.078
G.....1663	6.4	23 22.2	+3.10	+ 1 13 24.52	+ 3.192	−0.00448	.....
Green...7065	6.9	23 31.8	+6.34	+67 56 54.93	+ 2.998	−0.00914	−0.180
Gr.....356	6.6	23 43.9	+3.69	+25 04 36.89	+ 3.142	−0.00533	−0.018
A.....1613	6.4	23 57.5	+3.81	+29 06 57	+ 3.14	−0.006	.....
A.....1615	6.1	24 27.1	+4.24	+41 23 33	+ 3.10	−0.006	.....
G.....1670	6.5	24 29.1	+4.17	+39 45 23.55	+ 3.094	−0.00602	.....
B.....1324	6.6	24 51.2	+5.14	+57 09 30.64	+ 2.848	−0.00744	−0.214
A.....1618	6.2	24 54.8	+2.99	− 3 31 01	+ 3.06	−0.004	.....
B.....1327	5.1	25 09.7	+3.05	− 1 09 45.47	+ 3.009	−0.00440	−0.026
Green...3238	7.0	25 14.3	+7.78	+74 15 30.74	+ 2.917	−0.01123	−0.112
B.....1328	5.9	25 14.5	+3.11	+ 1 43 06.76	+ 3.015	−0.00450	−0.013
A.....1620	6.2	25 17.1	+3.43	+15 17 32	+ 3.03	−0.005	.....
A.....1624	6.5	25 34.5	+3.17	+ 4 08 08	+ 3.00	−0.005	.....
B.....1331	4.3	25 58.1	+3.21	+ 5 52 47.79	+ 2.930	−0.00464	−0.036
B.....1332	5.7	5 26 31.2	+3.15	+ 3 13 27.00	+ 2.911	−0.00455	−0.007

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.E. χ Aurigae	4.9	5 26 52.1	+3.90	+32 07 34.34	+ 2.875	−0.00563	−0.016
Gr.....360	4.7	26 56.2	+3.52	+18 31 40.84	+ 2.881	−0.00508	−0.002
Gr.....361	6.5	27 01.1	+3.48	+16 59 31.14	+ 2.836	−0.00502	−0.040
Gr.....362	7.0	27 01.6	+3.48	+16 59 23.79	+ 2.835	−0.00502	−0.040
G.....1682	7.0	27 04.4	+4.27	+42 02 39.07	+ 2.871	−0.00617	.....
Green...4599	6.8	27 16.0	+7.05	+71 35 44.64	+ 2.854	−0.01019	.....
B.J.....206	2.2	27 24.5	+3.06	− 0 21 54.64	+ 2.839	−0.00443	−0.002
B.J.....205	6.6	27 41.0	+8.00	+74 59 08.80	+ 2.837	−0.01157	+0.020
Green...7806	6.2	28 02.9	+6.14	+66 38 14.19	+ 2.785	−0.00888	.....
B.....1343	5.4	28 08.1	+3.03	− 1 39 23.48	+ 2.750	−0.00439	−0.028
Gr.....365	5.5	28 15.1	+3.52	+18 28 36.16	+ 2.776	−0.00509	+0.008
Gr.....366	6.1	28 17.8	+3.57	+20 24 39.76	+ 2.753	−0.00517	−0.013
Green...9462	6.0	28 32.3	+5.80	+64 05 50.04	+ 2.668	−0.00839	−0.076
Green...5127	6.8	28 33.3	+6.77	+70 18 27.65	+ 2.742	−0.00979	.....
B.....1346	5.7	28 47.3	+3.41	+14 14 35.45	+ 2.716	−0.00493	−0.006
B.....1349	5.6	28 57.3	+3.04	− 1 13 08.25	+ 2.700	−0.00441	−0.007
B.....1348	6.0	29 11.9	+4.92	+54 22 11.00	+ 2.685	−0.00713	−0.001
B.....1350	6.3	29 28.1	+4.53	+47 39 23.91	+ 2.647	−0.00656	−0.015
A.....1651	6.2	29 29.5	+3.05	− 1 05 40	+ 2.67	−0.004	.....
A.....1652	6.2	29 30.6	+3.04	− 1 31 53	+ 2.66	−0.004	.....
B.....1352	5.5	29 32.6	+3.16	+ 3 42 21.18	+ 2.635	−0.00457	−0.021
B.J.....208	4.6	29 52.7	+3.29	+ 9 25 45.16	+ 2.617	−0.00477	−0.010
Gr.....368	5.3	29 57.3	+3.66	+23 58 50.05	+ 2.602	−0.00530	−0.019
Green...5695	7.0	30 08.8	+6.70	+65 55 39.23	+ 2.604	−0.00970	.....
Gr.....369	3.7	30 10.8	+3.30	+ 9 52 28.19	+ 2.583	−0.00478	−0.018
B.....1359	5.8	30 15.1	+3.31	+10 10 50.79	+ 2.589	−0.00480	−0.006
A.....1659	6.3	30 16.7	+3.77	+27 36 17	+ 2.60	−0.005	.....
Gr.....371	6.2	30 35.1	+4.19	+40 07 30.20	+ 2.557	−0.00607	−0.009
A.....1666	6.2	30 55.1	+2.97	− 4 28 57	+ 2.54	−0.004	.....
B.....1364	4.8	30 56.7	+2.96	− 4 53 48.98	+ 2.532	−0.00429	−0.002
A.....1670	6.3	31 03.7	+2.97	− 4 25 22	+ 2.53	−0.004	.....
A.....1671	6.3	31 06.3	+3.00	− 3 18 41	+ 2.53	−0.004	.....
B.....1368	5.6	31 13.1	+2.96	− 4 54 51.57	+ 2.512	−0.00429	+0.001
Green...3655	6.8	31 28.2	+7.68	+73 56 08.83	+ 2.493	−0.01112	+0.003
B.....1369	5.9	31 31.6	+3.75	+26 52 07.74	+ 2.454	−0.00543	−0.030
B.J.....210	1.6	31 38.8	+3.04	− 1 15 31.80	+ 2.471	−0.00441	−0.003
A.....1675	6.4	31 49.9	+3.95	+33 30 14	+ 2.45	−0.006	.....
Gr.....375	5.4	31 50.4	+3.48	+16 59 06.58	+ 2.420	−0.00505	−0.039
B.....1373	4.3	31 57.7	+3.29	+ 9 14 32.63	+ 2.139	−0.00478	−0.307
B.....1371	7.0	32 08.3	+5.56	+61 53 49.53	+ 2.445	−0.00806	+0.015
B.J.....211	3.0	32 15.9	+3.58	+21 05 17.98	+ 2.394	−0.00519	−0.026
A.....1684	6.5	32 24.0	+3.28	+ 8 53 49	+ 2.41	−0.005	.....
B.....1378	5.7	32 51.3	+3.85	+30 26 23.04	+ 2.360	−0.00558	−0.009
A.E. Gr..944	6.4	33 01.5	+18.74	+85 09 14.46	+ 2.350	−0.02717	+0.004
B.....1383	6.0	33 08.7	+3.25	+ 7 29 18.32	+ 2.321	−0.00471	−0.023
Green...8606	5.8	33 25.1	+6.01	+65 39 00.03	+ 2.320	−0.00871	.....
A.....1694	6.2	33 27.0	+2.96	− 4 52 02	+ 2.32	−0.004	.....
Gr.....377	6.0	33 34.9	+3.82	+29 09 50.56	+ 2.296	−0.00554	−0.010
B.....1385	6.7	34 02.2	+4.86	+53 26 44.04	+ 1.756	−0.00705	−0.510
Gr.....378	5.0	5 34 09.5	+3.72	+25 50 50.82	+ 2.243	−0.00539	−0.014

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.J.....213	3.8	5 34 13.6	+3.01	− 2 39 05.22	+ 2.249	−0.00437	−0.001
B.....1391	4.6	34 26.0	+3.17	+ 4 04 15.02	+ 2.234	−0.00460	+0.002
A.....1704	6.3	34 46.5	+3.88	+31 18 35	+ 2.20	−0.006	.....
A.....1705	6.4	34 51.0	+3.90	+31 52 19	+ 2.19	−0.006	.....
A.....1706	6.1	35 02.2	+2.99	− 3 36 50	+ 2.18	−0.004	.....
B.....1393	6.4	35 23.6	+5.09	+56 32 07.36	+ 2.176	−0.00738	+0.028
B.....1394	6.5	35 51.8	+5.51	+61 25 58.05	+ 2.107	−0.00801	0.000
Gr.....380	4.9	36 05.6	+3.47	+16 29 16.75	+ 2.075	−0.00503	−0.013
A.....1714	6.1	36 06.7	+3.01	− 2 52 21	+ 2.09	−0.004	.....
N.A. (1st*) ζ Orionis	2.0	36 13.0	+3.03	− 1 59 22.81	+ 2.060	−0.00440	−0.014
B.....1399	5.1	36 16.5	+3.04	− 1 10 32.34	+ 2.064	−0.00442	−0.008
A.....1719	6.2	36 28.2	+3.08	+ 0 17 24	+ 2.06	−0.004	.....
A.....1720	6.5	36 37.5	+3.63	+22 36 58	+ 2.04	−0.005	.....
G.....1749	7.0	36 50.1	+4.26	+41 39 17.64	+ 1.908	−0.00619	−0.115
A.....1724	6.3	37 09.4	+3.00	− 2 56 31	+ 2.00	−0.004	.....
Green...9464	6.9	37 22.0	+5.89	+64 43 44.45	+ 1.977	−0.00855	.....
B.....1404	7.0	37 36.0	+3.53	+18 56 15.16	+ 1.951	−0.00512	−0.006
B.....1407	5.3	37 49.3	+3.10	+ 1 25 53.58	+ 1.919	−0.00450	−0.018
Gr.....383	6.1	37 51.6	+3.64	+23 09 43.67	+ 1.892	−0.00530	−0.042
A.....1734	6.5	38 36.2	+3.04	− 1 39 14	+ 1.87	−0.004	.....
B.....1410	6.1	38 55.2	+5.05	+56 04 45.52	+ 1.785	−0.00735	−0.056
B.J.....216	5.7	38 55.6	+4.65	+49 47 16.04	+ 1.832	−0.00675	−0.009
G.....1758	6.8	39 52.8	+4.75	+51 29 09.49	+ 1.758	−0.00691	.....
G.....1759	6.2	40 16.8	+3.17	+ 3 58 14.53	+ 1.724	−0.00461	.....
A.....1740	6.5	40 35.0	+5.66	+62 46 31	+ 1.70	−0.008	.....
G.....1760	6.8	40 48.0	+4.29	+42 29 39.96	+ 1.678	−0.00624	.....
B.....1422	6.1	41 34.9	+3.45	+15 47 16.26	+ 1.599	−0.00502	−0.010
A.....1747	6.4	41 35.2	+2.97	− 4 18 05	+ 1.61	−0.004	.....
A.....1748	6.1	41 55.8	+3.30	+ 9 29 25	+ 1.58	−0.005	.....
A.....1749	6.3	41 56.6	+3.10	+ 1 08 17	+ 1.43	−0.005	−0.14
Green...8616	6.7	41 58.2	+6.03	+65 43 27.35	+ 1.575	−0.00877	.....
B.....1423	5.9	42 05.6	+3.42	+14 27 20.14	+ 1.508	−0.00497	−0.056
B.J.....218	5.8	42 11.3	+3.50	+17 41 45.91	+ 1.550	−0.00509	−0.006
B.....1428	5.4	42 36.6	+3.40	+13 52 03.01	+ 1.506	−0.00495	−0.013
B.....1427	6.7	42 53.4	+5.12	+56 53 24.27	+ 1.490	−0.00744	−0.006
B.....1429	4.6	42 56.3	+4.16	+39 09 04.34	+ 1.466	−0.00604	−0.026
B.....1431	6.1	43 00.0	+3.58	+20 50 18.76	+ 1.464	−0.00521	−0.022
B.....1433	5.4	43 10.1	+3.22	+ 6 25 22.62	+ 1.448	−0.00469	−0.023
Green...6400	6.4	43 14.5	+6.45	+68 26 48.13	+ 1.465	−0.00939	.....
Gr.....387	5.0	43 29.5	+3.68	+24 32 16.52	+ 1.432	−0.00536	−0.010
G.....1772	6.7	43 47.2	+4.77	+51 29 16.09	+ 1.375	−0.00694	−0.043
A.....1767	6.0	44 06.5	+2.98	− 4 07 00	+ 1.39	−0.004	.....
A.....1766	6.3	44 21.3	+5.29	+58 56 22	+ 1.37	−0.008	.....
B.....1438	5.0	44 29.6	+3.37	+12 37 24.11	+ 1.329	−0.00490	−0.026
B.....1439	5.1	44 54.1	+4.09	+37 16 49.89	+ 1.281	−0.00596	−0.038
B.....1441	6.0	45 05.1	+3.30	+ 9 50 39.00	+ 1.291	−0.00481	−0.013
B.J.....221	3.9	45 15.1	+4.16	+39 07 22.60	+ 1.300	−0.00605	+0.011
Gr.....389	5.7	45 17.8	+3.78	+27 56 29.60	+ 1.297	−0.00550	+0.011
B.....1445	5.7	45 21.7	+3.41	+14 16 48.71	+ 1.246	−0.00497	−0.033
A.....1779	6.1	5 45 27.2	+3.18	+ 4 23 51	+ 1.27	−0.005	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension. 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....1777	6.5	5 45 33.7	+3.91	+32 05 59	+ 1.26	−0.006	.....
B.....1448	6.9	45 41.1	+3.42	+14 25 04.22	+ 1.223	−0.00497	−0.028
B.....1450	6.9	45 44.7	+3.41	+14 01 19.60	+ 1.250	−0.00496	+0.004
A.....1784	6.1	46 42.6	+3.97	+33 53 41	+ 1.16	−0.006	.....
B.....1452	5.3	46 54.1	+5.37	+59 52 08.05	+ 1.121	−0.00782	−0.024
Gr.....390	6.0	47 03.5	+3.55	+19 50 43.75	+ 1.100	−0.00518	−0.031
B.....1455	5.8	47 15.5	+3.41	+14 08 58.13	+ 1.103	−0.00496	−0.011
B.....1453	5.0	47 18.2	+5.03	+55 41 12.65	+ 1.122	−0.00732	+0.012
Gr.....393	4.5	47 40.2	+3.77	+27 35 29.95	+ 1.056	−0.00549	−0.021
B.....1458	5.1	47 46.0	+3.12	+ 1 50 01.17	+ 1.059	−0.00454	−0.011
Green...5699	7.0	48 06.5	+6.66	+69 35 20.48	+ 1.040	−0.00970	.....
Green...7813	6.6	48 26.5	+6.08	+66 04 52.22	+ 1.010	−0.00886	.....
Gr.....395	4.6	49 03.1	+3.55	+20 15 36.60	+ 0.861	−0.00516	−0.096
G.....1788	7.0	49 05.1	+4.77	+51 47 16.59	+ 0.942	−0.00695	−0.012
A.....1800	6.2	49 08.6	+3.90	+31 41 24	+ 0.76	−0.006	−0.19
A.....1802	6.3	49 14.3	+3.32	+10 34 06	+ 0.94	−0.005	.....
A.....1803	6.4	49 32.0	+3.15	+ 3 12 34	+ 0.91	−0.005	.....
Gr.....396	5.9	49 37.0	+3.55	+19 43 58.24	+ 0.918	−0.00518	+0.009
A.....1809	6.1	50 05.6	+3.10	+ 0 57 06	+ 0.86	−0.005	.....
A.....1810	6.4	50 06.7	+2.98	− 4 04 53	+ 0.87	−0.004	.....
A.....1806	6.5	50 09.7	+4.61	+49 00 56	+ 0.86	−0.007	.....
B.J.....224	1.0	50 17.9	+3.25	+ 7 23 27.46	+ 0.862	−0.00474	+0.013
Gr.....398	6.4	50 50.7	+3.81	+28 55 43.21	+ 0.802	−0.00555	.....
A.....1815	5.8	51 03.0	+2.96	− 4 37 50	+ 0.79	−0.004	.....
A.....1816	6.2	51 09.0	+2.96	− 4 48 06	+ 0.78	−0.004	.....
Gr.....399	6.0	51 25.4	+3.67	+24 14 13.14	+ 0.749	−0.00536	.....
Green...7073	6.9	51 28.4	+6.22	+67 00 22.95	+ 0.705	−0.00907	−0.041
G.....1801	6.1	51 31.3	+3.30	+ 9 29 47.30	+ 0.742	−0.00481	.....
B.J.....225	3.8	52 07.0	+4.94	+54 16 43.53	+ 0.568	−0.00721	−0.122
Green...8619	6.7	52 14.3	+6.01	+65 31 11.43	+ 0.679	−0.00876	.....
B.....1473	6.8	52 15.6	+5.00	+55 18 51.47	+ 0.583	−0.00729	−0.094
G.....1805	6.0	52 22.3	+4.66	+49 54 55.47	+ 0.667	−0.00679	.....
A.....1823	6.3	52 22.5	+4.95	+54 32 25	+ 0.67	−0.007	.....
Gr.....401	4.9	52 24.6	+3.72	+25 56 36.00	+ 0.656	−0.00543	−0.009
A.....1824	6.1	52 42.5	+4.66	+49 54 56	+ 0.66	−0.007	.....
Green...2868	6.7	52 44.7	+8.27	+75 35 01.85	+ 0.612	−0.01206	−0.023
B.J.....227	1.9	52 55.6	+4.40	+44 56 20.86	+ 0.611	−0.00641	−0.008
B.....1479	4.6	53 15.3	+4.45	+45 55 46.22	+ 0.582	−0.00649	−0.008
A.....1836	6.3	53 15.5	+3.10	+ 1 12 52	+ 0.59	−0.005	.....
B.J.....228	2.7	53 35.0	+4.09	+37 12 25.47	+ 0.474	−0.00597	−0.087
A.....1839	6.3	53 37.2	+3.05	− 1 00 08	+ 0.56	−0.004	.....
B.....1483	6.6	53 44.0	+4.39	+44 35 11.44	+ 0.506	−0.00639	−0.042
B.....1484	6.1	53 44.0	+3.12	+ 1 49 42.84	+ 0.537	−0.00454	−0.012
B.....1485	6.0	53 49.3	+3.37	+12 48 00.93	+ 0.567	−0.00492	+0.026
B.....1487	5.9	54 08.9	+4.55	+47 53 49.39	+ 0.491	−0.00664	−0.021
B.....1488	5.3	54 11.9	+3.08	+ 0 32 42.76	+ 0.508	−0.00449	+0.001
A.....1846	6.1	54 48.4	+4.61	+48 57 21	+ 0.45	−0.007	.....
A.....1849	6.4	55 04.3	+3.04	− 1 26 58	+ 0.44	−0.004	.....
A.....1851	6.4	55 21.2	+3.77	+27 34 05	+ 0.40	−0.006	.....
A.....1850	6.4	5 55 21.3	+3.88	+31 01 50	+ 0.40	−0.006	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....1828	6.5	5 55 22.3	+5.13	+57 01 04.88	+ 0.404	−0.00748	.....
B.....1494	4.8	55 33.2	+3.00	− 3 04 38.11	+ 0.307	−0.00438	−0.082
B.....1493	6.3	55 49.1	+4.66	+49 54 18.95	+ 0.321	−0.00680	−0.045
B.....1495	6.6	56 15.5	+3.62	+22 23 56.57	+ 0.302	−0.00528	−0.025
A.....1855	6.5	56 23.2	+4.34	+43 22 42	+ 0.32	−0.006	.....
B.....1498	6.3	56 48.7	+4.33	+42 54 54.97	+ 0.138	−0.00632	−0.141
A.....1860	6.5	57 00.8	+3.93	+32 38 35	+ 0.26	−0.006	.....
A.....1859	6.5	57 08.4	+5.33	+59 23 50	+ 0.25	−0.008	.....
B.....1499	6.6	57 20.9	+4.76	+51 34 35.39	+ 0.188	−0.00694	−0.044
B.....1501	4.2	57 25.9	+3.30	+ 9 38 52.46	+ 0.196	−0.00481	−0.029
G.....1838	7.0	57 54.3	+4.44	+45 35 24.42	+ 0.183	−0.00647	.....
G.....1835	6.6	58 02.4	+5.75	+63 27 30.90	+ 0.172	−0.00839	.....
Gr.....406	5.2	58 07.7	+3.55	+19 41 33.36	+ 0.152	−0.00518	−0.012
A.....1867	6.4	58 23.4	+3.35	+11 41 01	+ 0.14	−0.005	.....
Gr.....407	4.7	58 34.5	+3.56	+20 08 28.15	+ 0.130	−0.00519	+0.006
B.....1506	6.2	58 35.1	+4.32	+42 59 21.46	− 0.021	−0.00629	−0.145
N.A.1 Geminorum	4.3	5 58 39.0	+3.65	+23 16 07.90	+ 0.007	−0.00532	−0.109
A.....1875	6.4	6 00 07.6	+4.02	+35 24 10	− 0.30	−0.006	−0.29
B.....1513	6.0	00 10.2	+3.20	+ 5 25 32.30	− 0.012	−0.00467	+0.003
B.J.....230	5.9	00 13.0	+3.17	+ 4 09 51.47	− 0.034	−0.00462	−0.015
B.....1515	5.7	00 22.8	+4.14	+38 29 29.35	− 0.087	−0.00603	−0.054
Gr.....409	6.3	00 37.6	+3.83	+29 31 12.82	− 0.055	−0.00558	.....
G.....1852	6.5	01 02.5	+4.27	+41 51 50.38	− 0.091	−0.00623	.....
G.....1857	6.9	02 01.8	+4.24	+41 04 05.29	− 0.256	−0.00618	−0.078
B.....1520	5.5	02 02.7	+5.30	+58 56 54.05	− 0.159	−0.00773	+0.020
B.....1523	5.5	02 11.0	+2.98	− 4 11 03.07	− 0.197	−0.00434	−0.006
B.J.....232	4.4	02 26.0	+3.43	+14 46 47.29	− 0.244	−0.00499	−0.031
B.J.....233	5.6	03 47.8	+6.04	+65 44 14.79	− 0.361	−0.00880	−0.029
Gr.....412	6.0	04 06.9	+3.62	+22 12 18.50	− 0.401	−0.00528	−0.040
B.....1535	6.4	04 16.0	+3.13	+ 2 30 52.03	− 0.396	−0.00456	−0.022
B.....1534	6.0	04 16.1	+3.64	+23 07 43.04	− 0.386	−0.00531	−0.013
G.....1874	6.8	04 17.8	+3.13	+ 2 30 40.72	− 0.375	−0.00456	.....
A.....1902	6.5	04 31.9	+4.83	+52 40 03	− 0.39	−0.007	.....
B.....1536	6.3	04 42.9	+4.60	+48 43 48.20	− 0.474	−0.00670	−0.062
Gr.....414	5.9	06 01.2	+3.68	+24 26 25.76	− 0.572	−0.00536	−0.046
A.....1917	6.3	06 22.2	+3.40	+13 39 31	− 0.56	−0.005	.....
A.....1916	6.0	06 26.5	+3.93	+32 42 51	− 0.57	−0.006	.....
G.....1888	6.3	06 39.3	+4.73	+51 11 48.01	− 0.583	−0.00689	.....
Gr.....415	5.7	06 41.5	+3.56	+19 48 40.25	− 0.588	−0.00518	−0.002
B.....1548	4.4	06 49.4	+3.41	+14 13 46.60	− 0.631	−0.00497	−0.034
B.....1549	6.5	06 51.8	+3.64	+22 55 46.02	− 0.614	−0.00530	−0.014
B.....1550	5.1	06 51.9	+3.46	+16 09 05.10	− 0.623	−0.00504	−0.023
A.....1928	6.0	07 17.0	+2.96	− 4 38 40	− 0.63	−0.004	.....
G.....1897	6.6	07 22.8	+4.09	+37 10 55.69	− 0.645	−0.00596	.....
B.....1552	5.8	07 35.6	+5.39	+60 01 30.04	− 0.685	−0.00787	−0.021
G.....1899	6.4	08 05.7	+5.32	+59 14 31.72	− 0.708	−0.00775	.....
A.....1933	6.5	08 12.6	+3.32	+10 39 40	− 0.72	−0.005	.....
Gr.....416	6.2	08 16.0	+3.52	+18 42 16.26	− 0.740	−0.00513	−0.017
A.....1936	6.5	08 23.5	+3.01	− 2 28 55	− 0.72	−0.004	.....
G.....1908	6.8	6 08 53.5	+4.80	+52 12 46.46	− 0.779	−0.00699	.....

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		h m s	s	° ′ ″	″	″	″
B.J.....234	4.6	6 08 55.9	+6.62	+69 21 10.27	− 0.883	−0.00964	−0.102
Gr.....418	5.7	09 13.2	+3.51	+17 55 56.49	− 0.851	−0.00510	−0.045
A.....1942	5.9	09 25.7	+2.99	− 3 42 59	− 0.82	−0.004	.....
B.J.....236	3.3	09 26.7	+3.62	+22 32 01.09	− 0.839	−0.00526	−0.013
Gr.....420	5.2	09 33.1	+3.53	+19 11 15.47	− 1.030	−0.00513	−0.194
B.....1560	5.5	09 37.0	+5.54	+61 32 43.66	− 0.844	−0.00806	−0.003
Green...5712	6.7	09 37.3	+6.66	+69 36 07.42	− 0.842	−0.00970	.....
Gr.....421	4.5	09 38.6	+3.82	+29 31 55.02	− 1.106	−0.00556	−0.263
Green...4112	6.8	09 52.4	+7.23	+72 10 47.03	− 0.864	−0.01053	.....
Green...6415	6.9	09 54.7	+6.50	+68 42 32.72	− 0.868	−0.00947	.....
B.....1567	6.0	10 02.1	+3.41	+13 52 42.34	− 0.867	−0.00496	+0.011
B.....1569	6.0	10 09.7	+2.97	− 4 32 29.06	− 0.876	−0.00432	+0.012
B.....1568	5.4	10 13.7	+3.46	+16 10 17.22	− 0.914	−0.00504	−0.020
B.....1572	5.6	10 41.7	+3.37	+12 34 47.18	− 0.947	−0.00491	−0.012
Gr.....422	6.1	10 49.1	+3.66	+23 59 59.36	− 0.972	−0.00533	−0.027
A.....1954	6.4	10 51.3	+3.26	+ 6 05 45	− 0.95	−0.005	.....
B.....1571	6.9	10 52.2	+4.47	+46 27 17.39	− 0.937	−0.00651	+0.013
B.....1574	5.9	10 59.6	+3.05	− 0 28 39.23	− 1.165	−0.00442	−0.204
A.....1956	6.1	11 03.3	+2.96	− 4 53 04	− 0.96	−0.004	.....
Gr.....423	6.5	11 10.1	+3.49	+17 12 42.55	− 1.008	−0.00507	−0.031
G.....1928	6.3	11 14.9	+3.10	+ 1 11 51.72	− 0.984	−0.00451	.....
B.....1577	5.3	11 23.4	+3.37	+12 17 52.59	− 0.803	−0.00491	+0.193
B.....1578	6.5	11 29.3	+3.66	+23 46 19.15	− 1.008	−0.00533	−0.004
G.....1926	6.9	11 29.5	+4.17	+39 30 20.92	− 1.006	−0.00607	.....
G.....1921	6.4	11 32.2	+5.10	+56 33 40.77	− 1.009	−0.00742	.....
B.....1576	6.7	11 34.2	+4.47	+46 23 46.61	− 1.144	−0.00652	−0.133
B.J.....237	4.4	11 41.0	+5.30	+59 02 40.42	− 0.992	−0.00771	+0.029
B.....1581	5.5	12 08.9	+3.31	+ 9 58 33.16	− 1.125	−0.00481	−0.063
B.....1557	6.9	12 29.6	+26.65	+86 45 26.47	− 1.189	−0.03884	−0.097
B.....1582	6.0	12 30.0	+3.18	+ 5 07 43.34	− 0.936	−0.00460	+0.157
B.....1583	7.0	12 42.4	+3.76	+27 14 44.67	− 1.187	−0.00547	−0.076
G.....1934	7.0	12 52.5	+4.01	+35 14 36.28	− 1.166	−0.00583	−0.040
B.....1584	6.9	13 25.4	+3.66	+23 38 19.45	− 1.188	−0.00532	−0.015
G.....1938	7.0	13 31.5	+4.13	+38 28 20.09	− 1.183	−0.00601	.....
A.....1973	6.5	13 44.7	+3.29	+ 9 05 02	− 1.20	−0.005	.....
Gr.....424	6.2	13 47.8	+3.49	+17 21 39.97	− 1.244	−0.00508	−0.037
B.....1588	6.2	14 04.4	+5.33	+59 24 41.85	− 1.225	−0.00775	+0.006
B.....1593	5.5	14 27.5	+4.88	+53 29 38.17	− 1.358	−0.00710	−0.094
G.....1943	6.9	14 52.0	+4.29	+42 22 50.42	− 1.300	−0.00624	.....
B.....1596	6.0	14 56.3	+3.42	+14 41 23.09	− 1.321	−0.00497	−0.015
G.....1945	6.7	15 25.3	+5.13	+57 01 13.80	− 1.349	−0.00746	.....
Gr.....425	6.3	15 27.2	+3.83	+29 34 55.83	− 1.352	−0.00557	.....
G.....1946	6.8	15 28.6	+4.37	+44 06 01.34	− 1.353	−0.00635	.....
B.....1599	5.3	15 29.2	+3.00	− 2 54 21.00	− 1.353	−0.00436	+0.001
Gr.....427	6.5	16 10.8	+3.50	+17 48 21.48	− 1.415	−0.00508	.....
G.....1951	6.2	16 44.5	+3.13	+ 2 18 39.35	− 1.464	−0.00454	.....
G.....1952	6.5	17 19.3	+4.21	+40 33 58.60	− 1.515	−0.00612	.....
B.J.....241	2.9	17 31.0	+3.63	+22 33 37.91	− 1.641	−0.00528	−0.111
A.....1999	6.3	17 33.5	+3.37	+12 36 55	− 1.54	−0.005	.....
B.J.....242	5.1	6 17 58.1	+4.62	+49 20 05.13	− 1.573	−0.00672	−0.003

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		h m s	s	° ′ ″	″	″	″
Green...5141	6.0	6 17 58.9	+6.85	+70 35 07.32	− 1.572	−0.00995	.....
Green...1523	6.7	18 12.3	+9.95	+79 02 09.17	− 1.601	−0.01446	−0.009
G.....1958	7.0	18 16.1	+4.34	+43 35 45.71	− 1.596	−0.00630	.....
G.....1962	6.1	18 33.9	+3.16	+ 3 48 37.33	− 1.623	−0.00459	.....
Gr.....430	5.5	18 50.1	+5.07	+56 20 02.11	− 1.625	−0.00736	+0.021
A.....2004	6.4	18 56.1	+2.97	− 4 38 26	− 1.64	−0.004	.....
B.....1608	5.5	18 57.6	+5.24	+58 28 02.47	− 1.667	−0.00762	−0.011
B.J.....244	4.5	19 00.0	+3.18	+ 4 38 21.02	− 1.656	−0.00461	+0.004
A.....2008	6.5	19 07.0	+3.28	+ 8 55 57	− 1.67	−0.005	.....
Gr.....432	6.6	19 11.2	+3.70	+25 05 48.33	− 1.679	−0.00536	−0.002
A.....2010	6.5	19 41.5	+3.46	+16 06 27	− 1.72	−0.005	.....
G.....1969	6.8	19 57.4	+4.27	+42 00 36.82	− 1.744	−0.00620	.....
A.....2012	6.3	20 04.8	+3.65	+23 22 40	− 1.75	−0.005	.....
B.....1615	6.9	20 18.6	+3.60	+21 41 43.85	− 1.792	−0.00522	−0.018
A.....2016	6.3	20 20.2	+3.42	+14 46 18	− 1.78	−0.005	.....
A.....2019	5.8	20 40.1	+3.07	− 0 53 19	− 2.03	−0.004	−0.23
A.....2021	6.4	21 18.8	+2.98	− 3 50 15	− 1.86	−0.004	.....
A.....2025	6.5	21 41.1	+2.99	− 3 27 57	− 1.89	−0.004	.....
B.....1621	6.0	22 06.1	+3.04	− 1 27 12.70	− 1.960	−0.00440	−0.030
A.....2029	6.1	22 07.5	+2.97	− 4 32 38	− 1.93	−0.004	.....
B.....1623	6.8	22 24.8	+3.58	+20 50 42.72	− 2.013	−0.00518	−0.056
B.....1624	6.4	22 35.5	+3.57	+20 33 03.50	− 1.977	−0.00517	−0.004
B.....1626	5.4	22 36.5	+3.08	+ 0 21 13.53	− 1.986	−0.00446	−0.011
B.....1628	5.9	22 38.0	+3.14	+ 2 57 44.50	− 1.986	−0.00454	−0.010
B.....1630	6.0	22 39.5	+3.07	− 0 13 17.33	− 1.988	−0.00444	−0.010
B.....1629	(5.5)	22 47.0	+3.86	+30 32 57.25	− 2.013	−0.00558	−0.023
B.....1627	6.1	22 58.3	+5.22	+58 13 47.56	− 2.336	−0.00756	−0.330
A.....2042	6.4	23 16.9	+3.41	+16 17 48	− 2.07	−0.005	−0.03
B.....1632	6.2	23 19.7	+4.49	+46 44 36.94	− 2.032	−0.00650	+0.005
A.....2043	6.3	23 20.3	+3.32	+10 21 42	− 2.04	−0.005	.....
B.J.....246	5.0	23 30.9	+2.96	− 4 42 21.49	− 2.048	−0.00429	+0.005
N.A.ν Geminorum	4.1	23 37.2	+3.56	+20 16 11.43	− 2.081	−0.00516	−0.016
Gr.....435	6.6	24 03.3	+4.24	+41 27 40.88	− 2.127	−0.00615	−0.025
A.....2051	6.3	24 32.7	+3.14	+ 2 42 21	− 2.15	−0.005	.....
G.....1991	6.9	24 41.3	+3.79	+28 16 20.64	− 2.157	−0.00549	.....
Green...1525	6.6	24 49.3	+10.36	+79 40 12.22	− 2.144	−0.01502	+0.022
Green....758	6.4	25 30.4	+12.77	+82 11 35.29	− 2.255	−0.01850	−0.028
Gr.....439	6.2	25 57.1	+3.48	+17 00 07.23	− 2.293	−0.00503	−0.028
A.....2062	6.3	26 09.2	+3.34	+11 18 49	− 2.28	−0.005	.....
B.....1645	6.6	26 26.8	+3.45	+15 58 01.48	− 2.330	−0.00499	−0.022
Green...1831	5.9	26 30.7	+9.37	+78 04 07.94	− 2.305	−0.01355	+0.010
Green...3673	6.2	26 33.7	+7.60	+73 45 58.73	− 2.340	−0.01100	−0.020
B.....1646	6.1	26 34.9	+3.92	+32 31 10.46	− 2.351	−0.00566	−0.031
G.....2001	6.7	26 45.7	+4.81	+52 31 47.44	− 2.335	−0.00696	.....
B.....1647	5.2	26 47.2	+3.35	+11 36 27.34	− 2.300	−0.00484	+0.037
Gr.....440	6.9	27 02.7	+3.50	+17 50 36.87	− 2.337	−0.00506	+0.025
B.....1650	6.6	27 03.4	+3.50	+17 50 54.01	− 2.340	−0.00506	+0.021
G.....2003	6.9	27 03.5	+5.00	+55 25 11.51	− 2.363	−0.00723	.....
A.....2069	6.3	27 22.0	+3.35	+11 44 23	− 2.39	−0.005	.....
G.....2008	7.0	6 27 26.9	+4.17	+39 30 50.19	− 2.397	−0.00603	.....

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		h m s	s	° ′ ″	″	″	″
B.....1653	6.7	6 27 32.7	+3.19	+ 4 55 16.20	− 2.407	−0.00460	−0.004
B.....1657	4.8	28 02.2	+3.25	+ 7 23 58.02	− 2.456	−0.00469	−0.010
Gr.....442	6.6	28 09.3	+4.11	+38 08 39.72	− 2.457	−0.00594	+0.001
B.....1658	6.9	28 26.7	+5.07	+56 27 28.46	− 2.537	−0.00731	−0.056
B.....1663	5.7	28 29.5	+3.41	+14 13 29.66	− 2.579	−0.00492	−0.094
B.....1666	5.1	29 03.8	+3.04	− 1 09 05.64	− 2.572	−0.00439	−0.037
B.J.....247	6.3	29 28.1	+5.49	+61 33 40.64	− 2.848	−0.00789	−0.277
Gr.....444	5.1	29 32.1	+3.78	+28 05 35.30	− 2.591	−0.00545	−0.014
B.....1674	6.7	29 53.9	+3.25	+ 7 38 34.71	− 2.617	−0.00469	−0.009
Green...4619	6.1	29 54.5	+7.11	+71 49 30.44	− 2.609	−0.01027	.....
B.....1672	6.0	29 59.5	+5.11	+56 55 51.70	− 2.605	−0.00737	+0.011
A.....2095	6.0	30 20.0	+3.31	+10 03 37	− 2.65	−0.005	.....
B.....1676	5.9	30 21.7	+4.13	+38 31 07.57	− 2.683	−0.00596	−0.035
B.....1678	5.9	30 37.3	+3.10	+ 0 57 43.36	− 2.654	−0.00446	+0.017
B.J.....248	5.6	30 53.4	+10.31	+79 39 49.58	− 3.316	−0.01485	−0.623
G.....2021	7.0	31 55.9	+5.21	+58 10 27.13	− 2.785	−0.00751	.....
G.....2025	7.0	31 56.2	+3.68	+24 39 57.80	− 2.786	−0.00531	.....
Gr.....448	6.8	32 18.8	+4.25	+41 39 32.11	− 2.793	−0.00612	+0.024
B.J.....250	6.1	32 25.4	+4.16	+39 28 15.42	− 2.941	−0.00599	−0.114
B.J.....251	2.0	32 30.8	+3.47	+16 28 36.36	− 2.880	−0.00500	−0.045
B.....1688	5.3	32 33.1	+4.18	+39 58 48.92	− 2.869	−0.00602	−0.032
A.....2110	6.3	32 34.7	+3.22	+ 6 12 42	− 2.84	−0.005	.....
A.....2112	6.5	32 37.9	+3.33	+10 55 52	− 2.85	−0.005	.....
Gr.....451	5.5	32 40.7	+3.81	+29 03 43.86	− 2.853	−0.00548	−0.004
B.....1694	5.0	32 54.3	+4.29	+42 34 07.96	− 2.929	−0.00618	−0.061
A.....2117	6.4	32 58.4	+3.14	+ 2 46 56	− 2.88	−0.005	.....
A.....2119	6.4	33 05.8	+3.19	+ 5 02 02	− 2.89	−0.005	.....
G.....2033	7.0	33 25.9	+5.05	+56 10 50.47	− 2.915	−0.00727	.....
A.....2120	6.5	33 26.4	+4.36	+44 05 37	− 2.91	−0.006	.....
G.....2036	6.9	33 40.0	+4.37	+44 24 49.08	− 2.936	−0.00629	.....
A.....2123	6.4	33 40.5	+3.61	+22 06 39	− 2.93	−0.005	.....
A.....2125	6.3	33 49.4	+3.02	− 2 27 55	− 2.94	−0.004	.....
Gr.....452	5.8	33 52.7	+3.78	+28 20 35.69	− 2.978	−0.00545	−0.025
A.....2126	6.5	33 58.2	+3.11	+ 1 41 33	− 2.96	−0.004	.....
A.....2133	6.2	34 43.9	+3.38	+13 03 51	− 3.03	−0.005	.....
G.....2040	6.9	35 36.0	+5.67	+63 03 01.33	− 3.104	−0.00816	.....
Gr.....453	6.5	35 40.6	+3.78	+28 16 50.10	− 3.105	−0.00544	+0.004
B.J.....253	(4.4)	36 01.3	+3.31	+ 9 58 46.64	− 3.143	−0.00475	−0.005
A.....2138	6.5	36 10.4	+3.46	+16 28 56	− 3.15	−0.005	.....
A.....2139	6.3	36 17.5	+3.33	+11 05 15	− 3.16	−0.005	.....
G.....2044	7.0	36 22.2	+4.14	+38 58 50.21	− 3.168	−0.00595	.....
B.....1710	5.9	36 27.8	+3.09	+ 0 34 47.23	− 3.179	−0.00443	−0.003
B.....1707	5.2	36 32.1	+4.37	+44 36 42.07	− 3.221	−0.00628	−0.039
G.....2045	6.9	36 45.9	+5.11	+57 01 18.26	− 3.203	−0.00734	.....
A.....2144	6.4	36 55.3	+4.85	+53 23 28	− 3.22	−0.007	.....
A.....2145	6.4	37 07.1	+4.08	+37 14 08	− 3.23	−0.006	.....
Gr.....454	5.1	37 09.9	+3.49	+17 44 02.60	− 3.317	−0.00502	−0.080
B.....1716	4.9	38 17.3	+5.31	+59 32 01.74	− 3.332	−0.00761	+0.001
A.....2151	6.3	38 23.7	+3.15	+ 3 07 22	− 3.35	−0.005	.....
B.J.....254	3.1	6 38 23.8	+3.69	+25 13 15.46	− 3.357	−0.00530	−0.015

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....2156	6.2	6 38 53.9	+3.17	+ 4 01 19	− 3.39	−0.005	.....
B.....1721	4.7	38 54.8	+3.38	+13 19 09.17	− 3.464	−0.00485	−0.076
Gr.....456	5.5	39 03.3	+3.80	+29 03 46.11	− 3.415	−0.00546	−0.014
B.....1720	5.6	39 09.3	+5.13	+57 15 48.80	− 3.451	−0.00735	−0.042
B.J.....256	3.4	40 14.3	+3.37	+12 59 35.75	− 3.701	−0.00481	−0.199
B.J.....255	5.5	40 15.2	+4.33	+43 40 03.96	− 3.349	−0.00619	+0.154
B.....1726	6.9	40 41.7	+5.02	+55 48 11.82	− 3.649	−0.00719	−0.108
B.....1727	6.7	40 42.3	+5.02	+55 48 12.91	− 3.650	−0.00719	−0.108
B.....1728	5.4	40 47.9	+4.58	+48 53 07.61	− 3.548	−0.00655	+0.002
Green...7106	5.0	41 34.3	+6.27	+67 40 19.94	− 3.623	−0.00899	−0.005
B.....1733	6.1	41 37.9	+3.27	+ 8 40 59.28	− 3.625	−0.00468	−0.003
Gr.....459	6.2	42 07.9	+3.51	+18 17 29.57	− 3.721	−0.00501	−0.056
Gr.....460	5.0	42 26.6	+3.26	+ 8 08 05.78	− 3.681	−0.00465	+0.012
B.J.....258	4.7	43 10.1	+3.13	+ 2 30 40.35	− 3.773	−0.00447	−0.020
B.....1746	5.9	43 45.3	+3.04	− 1 13 04.87	− 3.838	−0.00434	−0.034
B.....1745	6.0	43 49.5	+3.91	+32 42 33.75	− 3.862	−0.00558	−0.052
B.J.....259	5.1	44 00.4	+6.49	+68 59 38.75	− 3.822	−0.00927	+0.003
B.....1748	5.2	44 24.2	+4.25	+41 53 16.78	− 3.995	−0.00605	−0.135
A.....2191	6.5	44 24.9	+3.10	+ 1 06 11	− 3.86	−0.004	.....
Gr.....463	5.7	44 39.0	+3.45	+16 18 20.51	− 3.856	−0.00492	+0.025
B.....1752	5.9	44 44.5	+3.02	− 2 10 10.97	− 3.860	−0.00431	+0.029
B.....1753	5.5	45 09.1	+5.30	+59 33 21.95	− 3.971	−0.00756	−0.047
B.....1756	6.0	45 20.7	+3.39	+13 31 01.75	− 3.952	−0.00482	−0.011
Gr.....465	5.2	46 09.4	+3.60	+21 52 04.43	− 4.048	−0.00512	−0.038
A.....2204	5.8	46 14.1	+3.06	− 0 25 46	− 4.21	−0.004	−0.20
Gr.....466	5.8	46 32.2	+3.65	+23 42 31.60	− 4.064	−0.00519	−0.021
A.....2206	6.4	46 34.0	+4.38	+44 57 00	− 4.04	−0.006	.....
B.....1762	6.3	46 50.0	+4.13	+38 58 38.19	− 4.063	−0.00588	+0.005
B.J.....261	3.4	46 51.5	+3.96	+34 04 13.75	− 4.125	−0.00564	−0.055
B.J.....260	4.6	46 57.3	+8.80	+77 05 37.15	− 4.091	−0.01259	−0.013
A.....2215	6.2	47 02.2	+4.02	+35 53 47	− 4.09	−0.006	.....
B.....1764	6.6	47 03.1	+4.12	+38 33 03.75	− 4.269	−0.00586	−0.182
B.....1768	6.6	47 47.0	+4.12	+38 36 57.77	− 4.177	−0.00585	−0.027
B.....1771	6.0	47 55.7	+3.27	+ 8 29 25.35	− 4.194	−0.00464	−0.033
A.....2226	6.4	48 23.0	+3.33	+11 06 42	− 4.20	−0.005	.....
G.....2094	6.6	48 45.0	+4.34	+44 01 22.01	− 4.232	−0.00617	.....
G.....2096	6.6	49 24.1	+4.09	+38 01 48.47	− 4.289	−0.00581	.....
B.J.....265	4.6	49 29.2	+5.21	+58 32 30.18	− 4.425	−0.00740	−0.130
G.....2095	6.3	49 31.8	+5.14	+57 40 41.97	− 4.300	−0.00730	.....
B.....1778	4.8	49 34.0	+3.39	+13 17 33.86	− 4.387	−0.00481	−0.085
Gr.....469	5.8	49 46.7	+3.69	+25 29 20.21	− 4.310	−0.00524	+0.011
B.....1782	5.6	49 50.2	+3.05	− 1 00 49.85	− 4.333	−0.00433	−0.008
B.....1779	6.0	49 52.9	+4.45	+46 23 20.52	− 4.323	−0.00631	+0.006
A.....2245	6.2	50 09.0	+3.04	− 1 38 34	− 4.35	−0.004	.....
A.....2242	6.2	50 16.3	+4.47	+46 49 27	− 4.36	−0.006	.....
A.....2247	6.0	50 28.0	+3.01	− 2 41 22	− 4.38	−0.004	.....
B.....1786	5.0	51 03.1	+4.38	+45 12 42.97	− 4.430	−0.00621	−0.002
Green...7112	6.5	51 03.8	+6.21	+67 27 06.14	− 4.431	−0.00881	.....
A.....2251	6.2	51 06.1	+3.95	+33 47 53	− 4.44	−0.006	.....
Green...5153	5.8	6 51 08.3	+6.85	+70 55 49.40	− 4.457	−0.00972	−0.021

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		h m s	s	° ′ ″	″	″	″
B.....1788	6.0	6 51 28.7	+3.30	+10 04 25.30	− 4.476	−0.00468	−0.011
G.....2109	6.9	51 32.6	+4.24	+41 49 31.95	− 4.472	−0.00601	.....
Green...5729	6.7	51 53.3	+6.61	+69 46 10.30	− 4.523	−0.00937	−0.022
Green...2881	6.8	52 05.9	+8.04	+75 21 34.57	− 4.791	−0.01140	−0.270
A.....2261	6.5	52 26.2	+3.55	+12 01 35	− 4.55	−0.005	.....
B.....1794	6.3	52 55.0	+4.09	+38 10 35.54	− 4.716	−0.00578	−0.128
G.....2115	7.0	52 57.1	+4.26	+42 26 11.32	− 4.592	−0.00603	.....
Gr.....471	6.1	53 14.7	+3.70	+26 11 59.94	− 4.534	−0.00522	+0.083
G.....2114	7.0	53 24.3	+5.72	+63 48 08.37	− 4.630	−0.00810	.....
B.....1797	7.0	53 51.2	+4.93	+54 58 54.96	− 4.705	−0.00697	−0.037
Gr.....472	6.3	53 54.6	+3.71	+26 02 13.84	− 4.685	−0.00524	−0.013
A.....2271	6.1	54 13.1	+3.16	+ 3 43 30	− 4.70	−0.004	.....
G.....2122	6.3	54 28.6	+3.24	+ 7 26 24.87	− 4.722	−0.00457	.....
Gr.....475	5.9	55 05.5	+3.45	+16 12 13.80	− 4.761	−0.00487	+0.013
Green...5155	6.6	55 41.2	+6.81	+70 51 47.30	− 4.850	−0.00962	−0.026
Gr.....477	5.2	56 55.8	+3.66	+24 20 40.14	− 4.927	−0.00516	+0.004
A.....2289	6.0	57 08.8	+3.43	+15 27 56	− 4.95	−0.005	.....
Gr.....478	6.2	57 11.5	+3.49	+17 53 02.51	− 4.951	−0.00491	.....
A.....2293	6.2	57 18.9	+3.05	− 1 12 57	− 4.96	−0.004	.....
Gr.....479	6.0	57 21.8	+3.46	+16 48 15.63	− 4.960	−0.00486	+0.006
G.....2133	6.7	57 42.2	+4.19	+40 42 46.64	− 4.995	−0.00589	.....
Gr.....480	6.0	57 47.3	+3.82	+29 29 19.97	− 5.833	−0.00538	−0.830
G.....2132	6.4	58 04.6	+5.31	+59 56 09.23	− 5.027	−0.00747	.....
B.....1811	6.2	58 22.6	+3.28	+ 9 16 11.09	− 5.043	−0.00461	+0.009
B.....1812	5.0	58 26.7	+2.98	− 4 06 29.14	− 5.049	−0.00418	+0.008
G.....2137	6.7	58 30.6	+4.78	+52 53 40.43	− 5.064	−0.00673	.....
B.....1813	5.3	58 38.9	+3.33	+11 05 02.80	− 5.106	−0.00467	−0.032
B.J. 51 H. Cephei	5.2	58 39.5	+29.38	+87 11 31.24	− 5.111	−0.04136	−0.036
B.J.....269	(3.8)	58 46.3	+3.56	+20 42 10.92	− 5.087	−0.00500	−0.003
A.....2304	6.1	58 49.1	+3.37	+12 43 36	− 5.09	−0.005	.....
Green...1836	6.9	59 35.2	+9.66	+78 53 44.46	− 5.154	−0.01358	.....
Gr.....485	5.9	6 59 53.4	+3.61	+22 46 21.96	− 5.185	−0.00506	−0.005
B.....1822	5.9	7 00 15.7	+3.96	+34 36 41.21	− 5.279	−0.00554	−0.068
A.....2314	5.9	00 43.3	+3.29	+ 9 19 22	− 5.26	−0.005	.....
G.....2149	6.1	01 27.8	+3.95	+34 08 57.28	− 5.314	−0.00553	.....
B.....1824	7.0	01 34.3	+5.39	+60 56 05.07	− 5.371	−0.00756	−0.050
G.....2150	6.9	01 37.7	+4.33	+44 10 47.40	− 5.327	−0.00606	.....
A.....2321	6.5	02 19.3	+3.94	+33 58 28	− 5.40	−0.006	.....
A.....2323	6.4	02 20.1	+3.19	+ 5 03 02	− 5.38	−0.004	.....
A.....2324	6.5	02 31.2	+4.07	+37 35 14	− 5.41	−0.006	.....
B.....1832	6.0	02 57.6	+3.25	+ 7 36 47.32	− 5.463	−0.00454	−0.025
B.....1835	5.7	03 12.4	+3.44	+16 04 29.95	− 5.570	−0.00481	−0.111
Green...4630	6.5	03 29.8	+7.03	+71 57 50.96	− 5.473	−0.00983	+0.010
B.....1840	4.5	05 24.8	+3.82	+30 23 36.47	− 5.691	−0.00531	−0.047
B.J.....274	5.0	05 28.0	+4.13	+39 28 05.37	− 5.648	−0.00576	+0.001
G.....2161	6.8	05 34.1	+4.31	+43 59 30.70	− 5.659	−0.00601	.....
B.....1844	5.1	05 45.5	+2.98	− 4 05 45.68	− 5.455	−0.00414	+0.217
Gr.....488	5.6	05 48.3	+3.72	+27 00 18.39	− 5.724	−0.00518	−0.045
G.....2163	6.4	05 51.4	+4.88	+54 38 35.02	− 5.683	−0.00680	.....
B.....1846	5.8	7 06 22.6	+4.69	+51 34 43.38	− 5.722	−0.00653	+0.003

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		h m s	s	° ′ ″	″	″	″
B.....1848	5.5	7 06 47.7	+3.07	− 0 09 09.84	− 5.764	−0.00426	−0.004
B.....1850	6.1	06 58.3	+3.65	+24 16 47.05	− 5.827	−0.00506	−0.052
A.....2354	6.5	07 03.3	+3.20	+ 5 48 14	− 5.78	−0.004	.....
B.....1853	4.2	07 16.1	+3.07	− 0 20 35.05	− 5.789	−0.00426	+0.011
A.....2356	6.4	07 19.9	+3.20	+ 5 37 28	− 5.80	−0.004	.....
B.....1854	5.4	08 03.6	+5.26	+59 47 55.65	− 6.124	−0.00729	−0.258
N.A. 51 Gem.	5.4	08 12.3	+3.45	+16 18 44.53	− 5.922	−0.00478	−0.042
Green....996	6.2	08 20.0	+11.55	+81 25 22.96	− 5.917	−0.01608	−0.026
B.....1860	5.7	09 09.3	+4.46	+47 24 02.10	− 6.138	−0.00619	−0.180
Gr.....492	6.0	09 11.8	+3.67	+25 02 30.72	− 6.068	−0.00509	−0.105
B.....1864	6.0	09 31.6	+3.35	+12 16 16.54	− 6.000	−0.00463	−0.012
B.....1865	5.6	09 37.2	+3.15	+ 3 15 58.50	− 5.997	−0.00436	0.000
A.....2371	6.1	09 42.3	+2.99	− 3 44 48	− 6.00	−0.004	.....
Green...2888	7.0	10 05.4	+7.92	+75 15 14.53	− 6.037	−0.01098	.....
Gr.....493	5.9	10 20.0	+3.75	+28 03 16.27	− 6.063	−0.00518	−0.006
G.....2179	6.0	10 30.1	+4.72	+52 17 26.63	− 6.072	−0.00654	.....
B.....1873	6.8	10 43.0	+3.07	− 0 00 16.35	− 6.097	−0.00424	−0.010
A.....2383	6.0	10 46.6	+3.26	+ 8 08 06	− 6.09	−0.005	.....
Gr.....496	6.5	11 28.9	+3.72	+26 51 08.00	− 6.287	−0.00514	−0.134
G.....2184	6.6	11 33.9	+4.10	+39 02 14.84	− 6.161	−0.00567	.....
B.....1879	4.9	11 41.8	+4.57	+49 37 33.05	− 6.177	−0.00631	−0.008
B.J.....276	6.0	11 46.9	+4.18	+41 02 37.97	− 6.173	−0.00577	+0.003
A.E.25H.Cam.	5.1	12 12.5	+12.85	+82 35 14.37	− 6.258	−0.01777	−0.045
A.....2394	6.5	12 19.1	+3.84	+31 07 05	− 6.22	−0.005	.....
B.J.....277	3.6	12 55.3	+3.45	+16 42 12.11	− 6.315	−0.00475	−0.044
B.....1894	6.6	14 24.5	+5.27	+60 04 10.20	− 6.388	−0.00726	+0.007
A.....2412	6.1	14 40.2	+3.14	+ 2 55 23	− 6.41	−0.004	.....
G.....2192	6.6	14 41.9	+4.25	+42 49 25.70	− 6.420	−0.00584	.....
B.J.....279	3.3	14 45.0	+3.59	+22 08 55.62	− 6.433	−0.00492	−0.010
B.....1897	5.8	14 46.7	+4.35	+45 23 43.13	− 6.420	−0.00598	+0.005
A.....2414	6.1	14 56.3	+3.24	+ 7 18 39	− 6.44	−0.004	.....
B.J.....280	5.5	15 31.7	+4.91	+55 27 06.73	− 6.522	−0.00675	−0.034
Green...3687	6.5	15 45.0	+7.26	+73 15 21.53	− 6.528	−0.01003	−0.020
B.....1912	5.3	16 02.0	+4.02	+36 55 49.56	− 6.570	−0.00550	−0.041
Gr.....500	5.2	16 38.3	+3.54	+20 36 50.73	− 6.590	−0.00483	−0.008
A.....2431	6.2	17 26.4	+3.08	+ 0 20 45	− 6.65	−0.004	.....
A.....2435	6.3	17 47.8	+3.01	− 2 48 27	− 6.68	−0.004	.....
B.....1919	5.5	17 54.7	+4.16	+40 50 47.28	− 6.708	−0.00569	−0.024
A.....2433	5.9	17 56.3	+4.69	+52 03 46	− 6.68	−0.006	.....
Gr.....502	5.1	17 59.4	+3.66	+25 13 26.68	− 6.710	−0.00499	−0.017
Gr.....503	6.0	18 03.7	+3.61	+23 07 08.74	− 6.733	−0.00492	−0.034
Green....998	6.5	18 18.7	+11.10	+81 04 52.23	− 6.731	−0.01522	−0.011
Green...7864	6.3	18 31.8	+5.97	+66 30 35.05	− 6.771	−0.00817	−0.034
B.....1926	5.9	18 57.5	+3.74	+27 48 44.97	− 6.756	−0.00510	+0.015
B.....1928	4.6	19 55.7	+4.54	+49 23 27.50	− 6.899	−0.00619	−0.049
B.....1930	5.0	19 58.2	+3.33	+11 50 46.78	− 6.871	−0.00454	−0.018
B.J.....282	3.8	20 08.3	+3.73	+27 58 39.62	− 6.953	−0.00507	−0.085
B.....1936	5.1	20 43.8	+3.28	+ 9 27 14.94	− 6.935	−0.00446	−0.019
Gr.....507	6.5	21 31.2	+3.55	+21 42 57.95	− 7.005	−0.00479	−0.022
B.J.....284	5.8	7 21 31.5	+6.28	+68 39 02.27	− 7.025	−0.00854	−0.044

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....2459	6.5	7 21 35.7	+2.98	− 4 21 27	− 6.99	−0.004	.....
Gr.....508	5.9	21 38.1	+3.54	+20 26 16.48	− 7.003	−0.00480	−0.011
B.....1943	5.9	22 09.4	+4.48	+48 22 03.42	− 7.091	−0.00609	−0.058
B.J.....285	2.9	22 16.3	+3.26	+ 8 28 16.68	− 7.083	−0.00441	−0.041
Gr.....510	5.3	22 23.9	+3.56	+21 37 48.13	− 7.155	−0.00483	−0.101
A.....2468	6.5	23 04.6	+3.73	+27 44 07	− 7.11	−0.005	.....
B.....1948	5.5	23 06.2	+4.57	+49 51 33.05	− 7.196	−0.00621	−0.085
B.....1950	5.4	23 11.7	+3.23	+ 7 07 33.31	− 7.163	−0.00437	−0.045
B.....1953	4.5	23 15.8	+3.27	+ 9 06 29.81	− 7.115	−0.00442	+0.008
B.J.....286	4.4	23 19.5	+3.86	+31 57 51.33	− 6.946	−0.00525	+0.183
A.....2476	6.5	23 40.3	+3.42	+15 17 41	− 7.16	−0.005	.....
Gr.....511	5.0	23 44.1	+3.74	+28 18 15.52	− 7.218	−0.00506	−0.053
G.....2233	6.8	23 57.3	+5.41	+61 56 54.66	− 7.302	−0.00734	−0.118
G.....2238	6.8	24 05.5	+4.06	+38 21 24.54	− 7.274	−0.00550	−0.081
Gr.....512	5.1	24 13.0	+3.74	+28 06 08.95	− 7.222	−0.00505	−0.018
B.....1963	6.0	24 45.7	+3.04	− 1 43 09.59	− 7.241	−0.00410	+0.005
B.....1962	4.9	24 47.3	+3.34	+12 11 35.89	− 7.267	−0.00451	−0.019
G.....2242	7.0	25 49.3	+4.08	+39 05 10.58	− 7.335	−0.00551	.....
A.....2493	6.5	26 10.1	+3.32	+11 23 34	− 7.36	−0.004	.....
Gr.....513	5.6	26 37.1	+3.46	+17 16 40.84	− 7.463	−0.00466	−0.064
A.....2499	6.5	26 56.0	+4.64	+51 30 27	− 7.42	−0.006	.....
B.....1974	5.3	27 25.5	+3.12	+ 2 06 20.49	− 7.476	−0.00419	−0.013
Gr.....514	6.4	27 27.1	+3.60	+23 04 48.25	− 7.473	−0.00484	−0.007
B.....1975	7.0	28 16.9	+3.42	+15 49 58.04	− 7.539	−0.00459	−0.007
Gr.....515	5.1	28 28.4	+3.43	+16 01 14.76	− 7.555	−0.00459	−0.005
B.....1978	5.8	28 28.6	+3.15	+ 3 28 57.49	− 7.514	−0.00422	+0.034
B.J.....287	(2.3)	28 51.4	+3.84	+32 05 12.80	− 7.660	−0.00512	−0.082
A.....2509	6.5	29 07.7	+3.31	+10 45 49	− 7.60	−0.004	.....
B.....1981	5.6	29 25.7	+3.82	+31 09 25.07	− 7.626	−0.00511	−0.001
B.....1980	6.2	29 27.7	+4.91	+55 57 14.21	− 7.672	−0.00657	−0.044
B.....1984	6.0	29 32.6	+3.15	+ 3 34 02.75	− 7.647	−0.00422	−0.013
G.....2256	6.6	29 36.1	+4.23	+43 13 47.59	− 7.641	−0.00568	.....
B.....1986	5.9	29 59.9	+4.37	+46 22 45.54	− 7.718	−0.00585	−0.046
G.....2257	7.0	30 07.2	+4.78	+54 02 27.39	− 7.684	−0.00640	.....
B.....1987	4.2	30 22.7	+3.70	+27 05 46.88	− 7.818	−0.00494	−0.116
Gr.....519	6.6	31 08.4	+4.11	+40 13 37.21	− 7.787	−0.00549	−0.022
A.....2524	6.2	31 11.5	+4.49	+48 58 33	− 7.77	−0.006	.....
A.....2529	6.1	31 47.4	+3.20	+ 6 03 42	− 7.82	−0.004	.....
G.....2266	6.6	32 04.6	+4.77	+54 06 20.42	− 7.926	−0.00637	−0.085
B.....1997	5.9	32 38.6	+3.94	+35 15 02.65	− 7.867	−0.00525	+0.018
B.J.....289	5.3	32 48.2	+2.98	− 3 54 34.14	− 7.878	−0.00396	+0.020
B.....2001	5.1	33 17.6	+3.92	+34 47 28.90	− 8.058	−0.00521	−0.122
B.....2000	6.4	33 23.2	+4.98	+57 17 20.34	− 7.962	−0.00663	−0.017
G.....2276	6.1	33 45.8	+3.63	+24 25 37.89	− 7.977	−0.00482	.....
A.....2543	6.5	34 09.0	+3.85	+32 13 02	− 8.01	−0.005	.....
G.....2277	6.0	34 11.3	+4.05	+38 33 04.12	− 8.010	−0.00538	.....
Gr.....521	5.2	34 16.8	+3.47	+17 52 48.33	− 8.000	−0.00459	+0.018
B.....2006	5.8	34 33.7	+4.44	+48 20 32.61	− 8.172	−0.00590	−0.134
B.J.....291	0.5	34 35.5	+3.14	+ 5 27 22.70	− 9.070	−0.00409	−1.029
G.....2278	6.5	7 34 35.9	+4.82	+54 58 26.59	− 8.044	−0.00640	.....

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		h m s	s	° ′ ″	″	″	″
B.....2013	6.2	7 35 20.2	+3.19	+ 5 26 19.37	− 8.129	−0.00422	−0.029
B.J.....292	5.0	35 23.9	+5.10	+58 55 18.62	− 8.159	−0.00676	−0.053
Gr.....525	6.2	35 35.3	+3.60	+23 13 38.16	− 8.115	−0.00476	+0.007
A.....2561	6.4	35 43.6	+3.38	+13 58 47	− 8.13	−0.004	.....
A.....2570	6.0	35 49.2	+3.37	+13 41 30	− 8.22	−0.004	.....
A.....2572	6.2	36 51.1	+3.12	+ 3 50 08	− 8.22	−0.004	.....
A.....2569	6.4	36 54.0	+3.90	+34 12 42	− 8.23	−0.005	.....
B.....2020	6.0	36 58.8	+3.38	+14 25 10.47	− 8.226	−0.00446	+0.006
B.....2022	5.5	37 15.4	+4.56	+50 38 50.55	− 8.296	−0.00602	−0.042
G.....2293	6.9	37 26.5	+4.24	+44 00 29.91	− 8.272	−0.00559	0.000
B.....2023	4.3	37 41.4	+3.76	+29 06 07.21	− 8.526	−0.00495	−0.237
A.....2581	6.5	38 00.7	+3.58	+22 36 44	− 8.32	−0.005	.....
Green...8671	6.0	38 04.4	+5.77	+65 40 18.30	− 8.299	−0.00762	+0.022
B.....2025	6.8	38 19.0	+5.46	+63 02 54.47	− 8.400	−0.00720	−0.062
A.....2584	6.4	38 28.2	+3.08	+ 0 24 10	− 8.35	−0.004	.....
Gr.....527	5.4	38 37.7	+3.66	+25 59 57.07	− 8.391	−0.00481	−0.026
Green...9513	6.8	38 40.3	+5.59	+64 16 13.52	− 8.368	−0.00738	.....
B.J.....294	3.4	39 01.0	+3.63	+24 36 52.21	− 8.448	−0.00476	−0.054
A.....2588	6.5	39 12.7	+3.36	+13 04 33	− 8.41	−0.004	.....
B.J.....295	1.1	39 48.6	+3.68	+28 14 39.34	− 8.510	−0.00476	−0.053
Gr.....530	6.3	39 52.4	+3.52	+20 31 57.75	− 8.444	−0.00462	+0.020
G.....2299	6.8	40 10.9	+5.22	+60 31 05.48	− 8.488	−0.00685	.....
B.....2037	5.5	40 39.1	+4.01	+37 44 09.65	− 8.507	−0.00526	+0.017
Gr.....531	5.0	40 54.9	+3.48	+18 43 48.69	− 8.591	−0.00454	−0.044
B.....2045	5.4	41 19.0	+3.31	+10 59 17.68	− 8.593	−0.00431	−0.017
Green...1242	6.5	41 26.7	+10.09	+80 29 34.36	− 8.540	−0.01301	+0.051
B.J.....296	5.5	41 42.4	+3.88	+33 38 14.19	− 8.637	−0.00506	−0.031
G.....2308	6.6	42 21.6	+5.21	+60 33 57.26	− 8.661	−0.00682	.....
B.....2054	6.5	43 10.8	+3.59	+23 21 50.48	− 8.738	−0.00467	−0.015
A.....2624	6.1	43 59.2	+3.36	+13 35 49	− 8.71	−0.004	+0.08
B.....2057	6.3	44 00.7	+4.75	+54 21 16.15	− 8.741	−0.00617	+0.048
Green...1243	6.9	44 59.8	+9.93	+80 05 51.15	− 8.877	−0.01295	−0.008
A.....2631	6.4	45 15.5	+3.87	+33 27 39	− 8.89	−0.005	.....
A.....2640	6.4	46 04.1	+3.15	+ 3 30 23	− 8.95	−0.004	.....
A.....2643	6.1	46 42.9	+3.49	+19 33 23	− 9.02	−0.005	−0.01
B.....2071	5.2	47 01.9	+3.11	+ 1 59 49.45	− 9.031	−0.00401	−0.006
A.....2650	6.4	47 24.0	+3.15	+ 3 30 39	− 9.06	−0.004	.....
B.....2076	6.5	47 56.7	+4.38	+47 37 10.51	− 9.101	−0.00565	−0.004
A.E.φGeminorum	5.0	47 59.5	+3.68	+26 59 58.15	− 9.127	−0.00473	−0.037
B.J.....299	5.7	48 09.8	+4.38	+47 47 55.25	− 9.120	−0.00565	−0.007
B.....2085	6.9	49 09.4	+4.89	+56 44 30.80	− 9.216	−0.00629	−0.025
B.J.....300	5.5	49 26.5	+7.25	+74 09 34.53	− 9.245	−0.00935	−0.032
Gr.....537	5.4	50 24.9	+3.50	+20 07 20.06	− 9.326	−0.00449	−0.035
B.....2092	6.0	50 38.2	+3.26	+ 9 06 08.61	− 9.393	−0.00417	−0.087
Green...1541	5.4	50 40.4	+9.59	+79 43 37.72	− 9.368	−0.01233	−0.055
A.....2677	6.4	51 38.9	+3.17	+ 4 43 30	− 9.39	−0.004	.....
B.....2098	6.1	51 52.9	+3.41	+16 01 52.39	− 9.451	−0.00435	−0.049
G.....2349	6.4	51 57.4	+4.22	+44 13 06.11	− 9.410	−0.00539	.....
G.....2352	6.2	52 23.0	+3.26	+ 8 52 56.99	− 9.443	−0.00415	.....
A.....2681	6.6	7 52 38.7	+3.09	+ 1 22 04	− 9.47	−0.004	0.00

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Gr.....539	6.2	7 53 23.5	+3.43	+16 45 41.47	− 9.517	−0.00436	+0.004
B.....2104	5.5	53 40.7	+3.11	+ 2 27 54.85	− 9.445	−0.00393	+0.095
B.....2101	6.0	53 48.4	+5.05	+59 17 32.84	− 9.527	−0.00644	+0.024
B.J.....302	6.3	54 01.7	+5.15	+60 34 16.86	− 9.589	−0.00656	−0.021
B.....2106	6.2	54 27.3	+5.41	+63 20 17.91	− 9.621	−0.00689	−0.021
A.....2692	6.2	54 33.8	+3.36	+13 29 14	− 9.61	−0.004	.....
B.J.....304	5.2	55 14.4	+3.00	− 3 26 01.03	− 9.651	−0.00378	+0.009
B.....2112	6.8	55 16.4	+4.91	+57 31 24.57	− 9.736	−0.00623	−0.073
A.E.ω. Cancri.	5.9	55 29.2	+3.63	+25 38 23.34	− 9.683	−0.00460	−0.001
Green....414	6.3	55 30.2	+14.81	+84 19 13.45	− 9.710	−0.01889	−0.026
Gr.....543	5.8	55 37.9	+3.44	+17 33 21.21	− 9.683	−0.00435	+0.010
Gr.....542	6.4	55 38.4	+3.59	+23 49 51.56	− 9.739	−0.00454	−0.047
A.....2703	6.5	56 04.3	+3.91	+35 39 43	− 9.73	−0.005	.....
A.....2704	6.2	56 12.7	+3.02	− 2 38 03	− 9.74	−0.004	.....
B.....2121	6.6	56 18.2	+3.63	+25 20 16.02	− 9.730	−0.00457	+0.012
Gr.....544	5.9	56 22.6	+3.42	+16 42 13.75	− 9.746	−0.00432	+0.003
B.....2124	5.8	56 28.4	+3.17	+ 5 07 40.25	− 9.744	−0.00400	+0.011
B.....2126	4.9	56 38.6	+3.05	− 1 08 32.27	− 9.847	−0.00385	−0.079
A.....2713	6.5	56 57.6	+3.26	+ 9 09 45	− 9.79	−0.004	.....
B.....2130	4.6	57 35.0	+3.12	+ 2 34 56.13	− 9.740	−0.00391	+0.099
B.J.....305	5.1	57 59.6	+3.69	+28 02 50.37	− 9.916	−0.00464	−0.046
Gr.....546	6.9	58 31.8	+3.54	+22 19 25.45	− 9.905	−0.00445	+0.009
G.....2373	6.8	58 37.1	+4.05	+39 59 42.54	− 9.921	−0.00508	.....
G.....2376	6.8	7 59 33.3	+3.47	+19 05 49.36	− 9.992	−0.00435	.....
B.....2138	5.2	8 00 03.8	+3.34	+13 22 30.27	−10.106	−0.00417	−0.078
A.....2728	6.5	00 06.2	+3.68	+27 47 11	−10.03	−0.005	.....
B.....2142	6.5	00 56.1	+4.17	+43 31 10.11	−10.125	−0.00521	−0.031
Gr.....548	6.2	00 58.5	+3.56	+22 53 35.69	−10.094	−0.00443	+0.005
Green...5176	6.6	01 01.2	+6.27	+69 58 59.45	− 9.999	−0.00790	+0.104
A.....2735	6.4	01 13.9	+3.07	− 0 18 57	−10.12	−0.004	.....
B.J.....307	4.6	01 41.6	+4.53	+51 46 00.76	−10.156	−0.00564	−0.005
B.....2146	5.5	02 28.2	+3.53	+21 50 36.91	−10.291	−0.00439	−0.081
A.....2738	6.0	02 41.4	+4.96	+58 30 47	−10.23	−0.006	.....
B.....2148	6.7	03 12.5	+4.13	+42 41 41.52	−10.338	−0.00514	−0.072
B.....2152	6.5	03 40.7	+3.36	+13 54 11.60	−10.334	−0.00415	−0.033
AE3Urs.Majoris H.	5.5	03 52.1	+6.02	+68 44 24.22	−10.310	−0.00749	+0.005
Gr.....553	4.4	04 04.3	+3.02	− 2 43 16.06	−10.314	−0.00372	+0.018
B.....2156	7.0	04 46.9	+3.63	+26 06 35.25	−10.421	−0.00448	−0.038
Gr.....554	5.8	05 02.1	+3.62	+25 46 51.62	−10.756	−0.00446	−0.351
G.....2394	6.5	05 24.0	+4.00	+38 59 59.70	−10.432	−0.00493	.....
Gr.....555	6.1	05 55.6	+3.38	+14 53 46.34	−10.485	−0.00415	−0.013
A.....2758	6.4	06 22.3	+3.28	+10 05 20	−10.51	−0.004	.....
B.....2162	6.0	06 40.4	+4.81	+56 43 21.69	−10.563	−0.00592	−0.039
A.E.ζ. Cancri.	4.7	07 03.1	+3.45	+17 55 11.61	−10.681	−0.00423	−0.140
B.....2169	6.1	07 03.4	+3.45	+17 55 08.15	−10.666	−0.00423	−0.114
B.....2160	6.4	07 12.5	+11.95	+82 42 41.25	−10.595	−0.01481	−0.031
Green...7890	7.0	07 15.6	+5.67	+66 26 59.03	−10.651	−0.00699	−0.080
B.....2173	5.8	07 34.4	+3.73	+29 55 36.79	−10.614	−0.00457	−0.023
A.....2772	6.3	07 53.0	+3.42	+16 47 07	−10.62	−0.004	.....
B.J.....310	5.8	8 08 15.6	+7.63	+76 01 58.50	−10.625	−0.00940	+0.017

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B.....2178	6.5	8 08 15.7	+5.09	+60 39 12.44	−10.635	−0.00624	+0.008
Gr.....559	6.4	08 21.9	+3.56	+23 24 32.64	−10.674	−0.00435	−0.021
N.A.B.A.C.2320	7.0	08 41.0	+62.03	+88 54 16.73	−10.695	−0.07666	+0.017
A.....2783	6.5	09 21.0	+3.34	+13 19 17	−10.73	−0.004	.....
B.....2182	7.0	09 32.1	+4.99	+59 27 52.88	−10.773	−0.00610	−0.037
B.....2185	5.6	10 22.3	+5.01	+59 50 51.89	−10.801	−0.00611	−0.003
Green...4149	6.2	10 46.2	+6.68	+72 41 14.85	−10.853	−0.00815	−0.023
A.....2795	6.3	11 20.3	+4.64	+54 25 22	−10.88	−0.006	0.00
Green...2899	6.5	11 21.7	+7.30	+75 06 02.28	−10.834	−0.00890	+0.040
B.....2193	5.9	11 27.7	+5.25	+62 47 10.02	−10.869	−0.00638	+0.009
B.J.....312	3.5	11 38.1	+3.26	+ 9 27 48.49	−10.943	−0.00393	−0.052
A.....2802	6.5	12 39.3	+3.25	+ 9 08 43	−10.97	−0.004	.....
Gr.....562	6.6	13 09.7	+3.39	+15 57 27.53	−11.023	−0.00409	−0.017
B.....2197	6.1	13 10.3	+4.87	+58 01 28.61	−10.986	−0.00590	+0.018
B.....2202	5.3	14 36.0	+3.65	+27 30 34.81	−11.496	−0.00438	−0.388
A.....2815	6.4	15 06.0	+3.16	+ 4 13 53	−11.15	−0.004	.....
Gr.....563	5.9	15 06.1	+3.51	+21 01 55.69	−11.210	−0.00420	−0.063
B.....2203	6.8	15 10.8	+5.07	+60 55 00.60	−11.153	−0.00610	−0.003
Gr.....564	5.9	15 11.3	+3.57	+24 18 21.78	−11.182	−0.00428	−0.028
A.....2818	6.3	15 37.4	+3.06	− 0 37 22	−11.09	−0.004	.....
B.J.....314	4.4	16 40.7	+4.12	+43 28 38.90	−11.366	−0.00493	−0.108
B.....2211	6.7	16 46.2	+3.05	− 1 18 56.38	−11.311	−0.00362	−0.046
B.....2210	5.8	16 59.9	+4.56	+53 30 36.68	−11.393	−0.00545	−0.111
N.A.d^1.Cancri.	6.0	18 12.7	+3.44	+18 37 18.21	−11.403	−0.00407	−0.031
B.....2220	6.3	18 37.3	+4.07	+42 17 42.89	−11.406	−0.00484	−0.007
B.....2223	6.5	19 00.0	+3.28	+10 55 21.61	−11.446	−0.00388	−0.020
G.....2437	6.1	19 19.5	+3.85	+35 18 11.26	−11.454	−0.00456	.....
B.....2227	5.7	20 05.8	+2.99	− 3 27 32.44	−11.534	−0.00350	−0.029
A.....2843	6.0	20 07.6	+2.99	− 4 25 24	−11.51	−0.004	.....
Gr.....566	6.2	20 44.3	+3.40	+17 20 35.82	−11.696	−0.00398	−0.143
A.....2850	6.0	20 55.2	+3.12	+ 2 23 45	−11.57	−0.004	.....
B.....2232	6.0	20 59.5	+3.66	+28 11 25.42	−11.700	−0.00430	−0.131
B.....2234	5.3	21 05.2	+3.22	+ 7 51 30.16	−11.581	−0.00378	−0.005
B.J.....316	3.6	21 09.9	+3.00	− 3 36 44.27	−11.602	−0.00351	−0.021
B.....2231	6.2	21 17.5	+5.71	+67 35 39.34	−11.594	−0.00673	−0.003
B.....2236	6.7	21 20.4	+4.20	+45 57 25.46	−11.955	−0.00493	−0.361
B.....2240	6.7	21 20.6	+3.63	+27 13 43.90	−11.602	−0.00427	−0.008
B.....2241	6.2	21 20.8	+3.63	+27 13 48.30	−11.603	−0.00427	−0.009
Gr.....570	5.8	21 45.4	+3.32	+12 57 07.80	−11.719	−0.00389	−0.093
B.....2246	5.6	21 57.4	+3.00	− 3 41 27.02	−11.683	−0.00350	−0.045
Green...6477	6.9	22 00.6	+5.88	+68 48 52.03	−11.645	−0.00693	.....
B.J.....317	3.3	22 47.8	+5.01	+61 01 11.48	−11.808	−0.00586	−0.111
Gr.....572	6.1	23 16.7	+3.56	+24 26 39.03	−11.792	−0.00416	−0.057
B.....2253	6.2	23 36.1	+3.35	+14 30 33.34	−11.772	−0.00391	−0.018
B.....2254	6.6	23 56.6	+3.03	− 2 13 06.62	−11.800	−0.00352	−0.022
Green...5767	6.4	24 00.1	+5.99	+69 37 22.32	−11.805	−0.00701	−0.020
G.....2460	6.8	25 12.7	+3.99	+40 31 38.86	−11.872	−0.00464	.....
A.....2885	6.4	25 30.2	+3.90	+37 34 05	−11.90	−0.005	.....
B.....2260	6.7	25 48.6	+4.52	+53 25 12.92	−11.997	−0.00524	−0.086
Gr.....574	5.7	8 26 11.3	+3.55	+24 23 06.53	−11.999	−0.00410	−0.059

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....2888	6.5	8 26 21.8	+7.12	+75 01 56	−11.95	−0.008	.....
B.....2265	5.8	26 28.0	+3.43	+18 23 56.47	−12.026	−0.00395	−0.069
G.....2469	7.0	26 31.7	+3.45	+19 17 30.40	−11.965	−0.00398	.....
Green...8695	5.4	26 33.3	+5.41	+65 27 10.04	−12.030	−0.00627	−0.063
G.....2466	7.0	26 41.6	+4.85	+58 54 48.83	−11.975	−0.00562	.....
B.J.....320	6.3	27 04.2	+3.91	+38 19 32.52	−12.169	−0.00452	−0.170
B.J.....321	5.6	27 30.4	+3.47	+20 44 50.91	−12.079	−0.00400	−0.050
B.....2272	6.4	27 35.5	+3.86	+36 44 31.92	−12.043	−0.00443	−0.008
Gr.....577	6.1	27 41.0	+3.55	+24 23 29.63	−12.082	−0.00410	−0.037
B.....2276	6.7	27 46.0	+3.27	+10 22 17.52	−12.058	−0.00375	−0.010
A.....2904	6.4	28 46.1	+3.33	+13 33 57	−12.12	−0.004	.....
B.....2277	5.9	28 57.1	+3.86	+36 43 43.90	−12.180	−0.00443	−0.050
A.....2906	6.1	28 58.9	+3.17	+ 5 03 53	−12.14	−0.004	.....
A.....2909	6.2	29 22.5	+3.24	+ 8 45 41	−12.17	−0.004	.....
B.....2280	5.8	29 28.5	+3.04	− 1 50 38.40	−12.146	−0.00346	+0.021
B.J.....322	6.4	29 43.4	+6.76	+73 56 43.23	−12.288	−0.00776	−0.104
B.....2282	6.9	30 09.1	+3.45	+19 54 00.21	−12.231	−0.00393	−0.018
G.....2479	6.8	30 11.7	+4.06	+42 53 26.70	−12.221	−0.00464	.....
Green....777	6.7	30 11.9	+11.18	+82 33 33.03	−12.229	−0.01288	−0.007
A.....2917	6.5	30 43.6	+3.13	+ 3 03 14	−12.26	−0.004	.....
B.....2285	6.3	31 04.0	+3.19	+ 6 56 03.95	−12.427	−0.00361	−0.150
Gr.....579	6.3	31 05.0	+3.37	+15 37 31.55	−12.308	−0.00383	−0.027
Green...8696	5.7	31 12.8	+5.37	+65 19 57.80	−12.197	−0.00613	+0.094
B.....2289	6.0	31 39.4	+4.50	+53 42 55.45	−12.344	−0.00512	−0.026
G.....2484	6.9	31 51.1	+4.92	+60 15 17.31	−12.336	−0.00560	.....
B.....2292	6.1	32 13.1	+3.26	+ 9 58 06.83	−12.379	−0.00368	−0.022
G.....2487	7.0	32 19.1	+4.48	+53 14 26.41	−12.367	−0.00509	.....
Green...9530	4.8	32 21.4	+5.28	+64 38 34.88	−12.347	−0.00600	+0.023
B.J.....323	6.3	32 37.9	+4.46	+53 01 39.49	−12.420	−0.00506	−0.035
B.....2294	6.3	32 41.9	+3.76	+33 06 59.76	−12.407	−0.00425	−0.017
A.E.δHydrae.	4.2	32 53.6	+3.18	+ 6 01 05.32	−12.417	−0.00358	−0.011
A.....2934	6.1	32 58.5	+2.99	− 4 37 12	−12.41	−0.003	.....
Green...3710	6.9	33 05.1	+6.61	+73 29 16.54	−12.420	−0.00752	.....
B.....2296	6.8	33 12.7	+3.25	+ 9 53 22.54	−12.434	−0.00366	−0.009
Gr.....581	6.8	33 28.0	+3.53	+24 00 19.17	−12.581	−0.00399	−0.135
A.E.σ.Hydrae.	4.5	34 03.3	+3.14	+ 3 39 28.75	−12.495	−0.00352	−0.020
B.....2305	6.9	34 32.5	+3.45	+20 05 45.62	−12.532	−0.00387	−0.016
A.....2945	6.5	34 43.8	+3.73	+32 15 40	−12.53	−0.004	.....
B.....2306	5.6	34 48.2	+4.16	+46 09 00.67	−12.457	−0.00468	+0.077
B.....2308	6.7	34 55.9	+3.46	+20 19 33.44	−12.565	−0.00387	−0.022
B.....2309	6.9	35 01.0	+3.46	+20 17 22.16	−12.566	−0.00387	−0.017
B.....2310	6.8	35 12.2	+3.45	+19 59 19.04	−12.583	−0.00386	−0.022
Gr.....582	6.3	35 17.4	+3.45	+19 51 48.81	−12.609	−0.00386	−0.027
A.....2956	6.3	36 45.2	+4.20	+47 13 30	−12.67	−0.005	.....
N.A.γ Cancri.	4.8	38 04.8	+3.48	+21 47 33.86	−12.801	−0.00385	−0.043
Gr.....585	5.7	38 14.8	+3.31	+13 00 14.82	−12.761	−0.00367	+0.010
Gr.....586	4.3	38 31.3	+3.14	+ 3 43 20.01	−12.784	−0.00346	+0.005
B.J.....326	3.9	39 34.4	+3.41	+18 29 08.22	−13.093	−0.00376	−0.236
B.....2338	6.4	39 50.3	+3.69	+31 01 26.70	−12.895	−0.00407	−0.020
B.....2339	5.8	8 39 52.0	+3.26	+10 24 28.93	−12.902	−0.00359	−0.026

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....2343	6.3	8 40 15.4	+3.18	+ 6 00 25.90	−12.906	−0.00349	−0.003
Green...7161	6.2	40 41.0	+5.48	+67 02 20.48	−12.966	−0.00606	−0.031
B.....2346	6.8	40 48.0	+3.03	− 2 16 24.84	−12.945	−0.00332	−0.006
B.J.....328	4.1	41 15.2	+3.64	+29 05 22.82	−13.016	−0.00399	−0.047
B.....2351	5.9	41 28.6	+3.04	− 1 43 17.09	−12.939	−0.00332	+0.045
Gr.....589	5.7	42 00.1	+3.29	+12 26 26.60	−13.056	−0.00359	−0.034
B.J.....329	3.3	42 00.7	+3.18	+ 6 44 58.28	−13.070	−0.00345	−0.050
B.....2357	5.3	42 41.3	+3.04	− 1 34 00.89	−13.070	−0.00330	−0.006
G.....2544	6.8	43 12.2	+3.88	+38 40 38.16	−13.102	−0.00423	.....
B.....2361	4.5	43 40.0	+3.18	+ 6 10 14.31	−13.167	−0.00344	−0.037
B.....2365	5.3	44 50.4	+3.02	− 3 06 31.06	−13.231	−0.00325	−0.024
B.....2364	6.5	44 56.9	+3.74	+33 37 19.27	−13.301	−0.00403	−0.088
Gr.....592	6.1	45 37.9	+3.42	+19 10 06.14	−13.263	−0.00368	−0.001
B.....2368	5.3	45 54.7	+4.04	+44 03 43.64	−13.241	−0.00435	+0.037
B.....2367	5.9	45 58.2	+4.98	+62 17 58.84	−13.262	−0.00537	+0.019
B.....2369	6.5	46 00.8	+3.35	+15 41 05.36	−13.216	−0.00359	+0.068
A.....3017	6.1	46 04.9	+4.10	+45 39 02	−13.29	−0.004	.....
G.....2562	6.7	46 13.0	+3.98	+42 20 28.33	−13.387	−0.00428	−0.087
B.....2377	5.9	47 01.2	+3.71	+32 48 42.80	−13.342	−0.00398	+0.008
B.....2378	6.5	47 04.0	+3.61	+28 35 50.66	−13.368	−0.00387	−0.015
B.....2380	6.2	47 14.4	+3.58	+28 40 30.08	−13.609	−0.00380	−0.245
A.....3033	6.5	48 15.9	+3.79	+35 52 45	−13.43	−0.004	.....
B.J.....333	5.6	48 45.4	+3.67	+30 55 14.77	−13.488	−0.00391	−0.026
Green...9539	5.6	48 55.1	+5.19	+64 56 56.90	−13.567	−0.00554	−0.090
B.....2391	5.5	50 16.4	+3.60	+28 16 17.61	−13.599	−0.00381	−0.039
Gr.....594	6.4	50 18.8	+3.39	+17 34 27.54	−13.554	−0.00358	+0.013
B.J.....334	3.1	50 38.3	+3.17	+ 6 17 18.84	−13.572	−0.00334	+0.012
A.....3047	6.1	50 40.7	+3.92	+40 32 49	−13.59	−0.004	.....
B.....2392	6.1	50 44.7	+4.08	+45 58 38.62	−13.637	−0.00430	−0.046
B.....2394	5.8	51 00.8	+3.28	+11 58 13.09	−13.630	−0.00345	−0.021
B.....2398	5.7	51 23.6	+3.71	+33 15 25.65	−13.713	−0.00391	−0.081
G.....2579	6.8	51 29.6	+5.06	+63 46 34.23	−13.643	−0.00535	.....
G.....2580	6.6	51 35.5	+5.05	+63 42 03.67	−13.649	−0.00534	.....
A.....3056	6.3	51 53.7	+3.15	+ 4 34 55	−13.67	−0.003	.....
A.....3057	6.4	52 04.9	+3.38	+17 29 26	−13.69	−0.004	.....
Gr.....598	5.2	52 13.8	+3.35	+15 40 05.88	−13.656	−0.00351	+0.033
B.....2401	6.5	52 30.9	+3.65	+30 34 47.42	−13.693	−0.00384	+0.012
Gr.....599	5.6	52 33.7	+3.35	+15 55 38.48	−13.675	−0.00351	+0.036
G.....2589	6.3	52 50.8	+3.24	+ 9 44 05.10	−13.729	−0.00338	.....
B.J.....335	2.9	53 03.1	+4.12	+48 23 44.14	−13.986	−0.00427	−0.248
B.J.....337	4.1	53 34.0	+3.29	+12 12 23.84	−13.807	−0.00342	−0.035
B.....2409	5.6	54 01.2	+3.69	+32 46 07.12	−13.849	−0.00384	−0.048
B.....2410	6.7	54 05.9	+3.39	+18 29 07.95	−13.884	−0.00353	−0.079
B.J.....338	4.9	54 26.7	+5.46	+67 58 52.04	−13.812	−0.00570	+0.015
G.....2594	6.5	54 47.7	+3.83	+37 57 17.44	−13.853	−0.00397	.....
B.J.....339	3.9	54 48.2	+3.91	+42 08 22.75	−14.114	−0.00402	−0.265
G.....2599	6.6	55 53.0	+3.88	+40 04 04.42	−14.000	−0.00401	−0.078
B.....2417	6.1	55 53.2	+3.69	+32 36 15.92	−13.923	−0.00381	−0.005
B.....2419	6.3	56 27.1	+3.58	+28 15 27.08	−14.041	−0.00369	−0.088
B.....2415	6.5	8 56 44.3	+13.12	+84 32 39.78	−13.953	−0.01367	+0.019

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....3083	6.3	8 56 46.3	+3.17	+ 5 59 39	−13.98	−0.003	.....
B.....2425	6.0	57 22.1	+3.07	− 0 07 49.98	−13.932	−0.00313	+0.079
B.J.....340	5.9	57 25.2	+4.42	+54 38 21.24	−14.012	−0.00455	+0.003
B.....2426	5.6	57 28.7	+3.51	+24 48 27.39	−14.023	−0.00360	−0.005
B.J.....341	3.3	57 29.2	+4.11	+47 30 46.93	−14.083	−0.00422	−0.065
Green...1010	6.5	57 50.3	+9.22	+81 11 25.79	−14.069	−0.00954	−0.024
A.....3091	6.0	57 57.2	+3.20	+ 7 39 12	−14.05	−0.003	.....
G.....2611	7.0	58 02.2	+3.85	+39 05 53.80	−14.056	−0.00394	.....
Green...6493	7.0	58 10.3	+5.53	+68 48 10.37	−14.065	−0.00569	.....
B.....2429	6.8	58 48.2	+3.58	+28 15 17.65	−14.109	−0.00365	−0.008
B.....2430	7.0	58 59.1	+4.24	+51 10 58.95	−14.186	−0.00432	−0.075
B.....2432	5.8	59 11.8	+4.16	+48 53 18.84	−14.145	−0.00424	−0.020
G.....2614	6.1	8 59 44.3	+4.69	+59 42 14.93	−14.163	−0.00478	.....
Green...7166	5.3	9 00 30.4	+5.32	+67 14 07.09	−14.256	−0.00540	−0.047
B.....2437	4.8	00 48.5	+3.83	+38 48 44.70	−14.251	−0.00386	−0.025
B.....2439	5.5	01 14.1	+3.16	+ 5 27 08.82	−14.254	−0.00318	−0.003
Gr.....607	6.7	02 15.9	+3.46	+23 20 33.43	−14.273	−0.00346	+0.045
A.....3106	6.4	02 21.0	+3.10	+ 1 49 28	−14.32	−0.003	.....
B.J.....344	4.9	02 29.3	+5.33	+67 30 02.48	−14.395	−0.00537	−0.067
B.....2443	4.5	02 31.7	+4.25	+51 58 06.50	−14.370	−0.00426	−0.040
B.....2444	5.7	02 36.1	+3.61	+30 00 59.44	−14.343	−0.00362	−0.009
N.A.κ.Cancri.	5.2	02 52.5	+3.25	+11 01 51.11	−14.366	−0.00325	−0.013
A.....3110	6.1	03 20.5	+3.70	+34 14 58	−14.53	−0.004	−0.14
B.....2447	6.3	03 29.8	+3.54	+27 00 06.74	−14.776	−0.00352	−0.387
B.....2446	4.8	03 30.6	+4.99	+63 52 49.14	−14.460	−0.00502	−0.069
N.Aξ. Cancri.	5.2	04 11.3	+3.46	+22 24 36.11	−14.431	−0.00344	+0.002
Gr.....610	6.1	05 10.8	+3.45	+22 21 44.42	−14.477	−0.00342	+0.018
A.....3120	6.0	05 12.7	+3.64	+31 19 50	−14.50	−0.004	.....
Green...4161	6.5	05 19.2	+5.92	+72 01 33.23	−14.504	−0.00590	.....
G.....2633	7.0	05 36.9	+4.81	+62 02 37.55	−14.523	−0.00477	.....
Green...2175	6.9	06 28.5	+7.20	+77 26 45.35	−14.574	−0.00714	.....
B.....2461	6.1	06 51.6	+6.11	+73 19 09.24	−14.659	−0.00603	−0.066
B.....2462	7.0	06 53.7	+3.38	+18 24 47.36	−14.625	−0.00331	−0.030
B.....2463	5.4	07 14.3	+4.78	+61 47 40.94	−14.647	−0.00471	−0.032
B.....2464	6.7	07 22.2	+3.29	+15 21 32.70	−14.388	−0.00318	+0.235
A.....3128	6.4	07 30.9	+3.14	+ 4 14 10	−14.63	−0.003	.....
B.J.....346	5.3	07 55.3	+3.94	+43 35 21.43	−14.698	−0.00385	−0.042
Gr.....611	6.1	08 29.0	+3.43	+21 39 15.78	−14.709	−0.00334	−0.016
B.....2474	5.6	09 10.3	+4.47	+57 06 54.74	−14.766	−0.00436	−0.035
G.....2645	7.0	09 10.4	+3.80	+38 58 47.07	−14.680	−0.00369	+0.063
B.J.....347	3.9	09 41.0	+3.12	+ 2 41 39.88	−15.074	−0.00303	−0.313
B.....2478	6.2	09 43.0	+3.69	+35 00 18.76	−14.729	−0.00357	+0.034
B.....2476	5.0	09 43.2	+4.34	+54 23 38.97	−14.704	−0.00423	+0.060
Gr.....613	5.6	10 15.9	+3.32	+15 18 54.95	−14.778	−0.00320	+0.020
Green...3299	6.5	10 40.2	+6.29	+74 23 43.28	−14.898	−0.00611	−0.075
B.....2484	6.2	11 29.1	+4.04	+47 11 34.46	−14.859	−0.00389	+0.008
B.....2494	6.7	12 53.2	+3.71	+35 44 32.22	−14.985	−0.00354	−0.036
B.J.....349	3.9	13 14.9	+3.74	+37 11 02.25	−15.099	−0.00357	−0.129
B.J.....350	6.7	13 57.6	+3.35	+18 05 14.51	−15.147	−0.00317	−0.135
G.....2655	6.8	9 13 59.8	+3.52	+26 37 53.72	−15.017	−0.00333	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....2654	6.9	9 14 10.2	+4.24	+52 49 50.94	−15.027	−0.00403	.....
B.....2502	6.4	14 29.3	+4.18	+51 38 33.78	−14.907	−0.00396	+0.135
A.....3168	5.9	15 07.5	+4.44	+57 04 52	−15.08	−0.004	.....
G.....2660	6.7	15 21.3	+3.77	+38 34 11.34	−15.097	−0.00356	.....
A.....3173	6.5	15 27.8	+3.98	+45 45 09	−15.11	−0.004	.....
G.....2662	6.5	15 34.2	+3.81	+40 02 54.71	−15.108	−0.00359	.....
B.J.....352	3.2	15 34.6	+3.66	+34 46 24.98	−15.093	−0.00343	+0.012
A.....3177	6.4	15 59.9	+3.65	+33 17 07	−15.13	−0.003	.....
B.....2518	6.7	18 19.5	+3.48	+25 34 04.45	−15.264	−0.00322	−0.003
Green...2915	6.3	18 25.8	+6.42	+75 29 10.40	−15.273	−0.00600	.....
Green...9548	6.5	18 30.1	+4.87	+64 19 42.58	−15.308	−0.00454	−0.032
G.....2670	6.8	18 41.4	+4.18	+51 57 37.54	−15.287	−0.00388	.....
B.....2524	4.7	19 24.9	+3.50	+26 34 12.49	−15.376	−0.00323	−0.053
B.....2527	6.9	19 41.5	+3.38	+20 10 34.88	−15.460	−0.00311	−0.121
B.....2528	6.5	20 33.5	+3.33	+16 58 27.44	−15.408	−0.00304	−0.020
B.....2529	6.0	20 54.0	+3.00	− 4 43 44.11	−15.416	−0.00273	−0.010
A.....3205	6.2	21 47.5	+3.06	− 1 04 26	−15.45	−0.003	.....
B.....2530	5.6	22 46.4	+3.95	+45 59 46.86	−15.647	−0.00358	−0.136
G.....2680	5.7	23 22.1	+4.31	+56 08 21.00	−15.601	−0.00391	−0.052
Green...7181	6.8	23 31.5	+5.15	+67 56 07.96	−15.557	−0.00467	.....
Gr.....622	5.5	23 38.3	+3.22	+ 9 26 57.28	−15.545	−0.00289	+0.018
Gr.....623	5.9	23 41.7	+3.20	+ 8 34 52.52	−15.565	−0.00287	+0.002
B. J. 1 H. Draconis	4.3	24 20.0	+8.84	+81 43 31.05	−15.617	−0.00802	−0.020
B.J.....355	3.5	24 26.7	+4.77	+63 27 21.58	−15.575	−0.00431	+0.028
A.....3220	6.3	24 27.7	+3.06	− 0 51 49	−15.61	−0.003	.....
B.....2541	4.9	24 34.9	+3.05	− 2 22 30.88	−15.629	−0.00273	−0.019
A.....3222	6.0	24 51.0	+3.05	− 1 48 40	−15.63	−0.003	.....
A.....3223	6.4	25 01.5	+3.02	− 3 51 01	−15.64	−0.003	.....
B.....2543	6.1	25 17.1	+3.64	+34 03 05.75	−15.715	−0.00325	−0.065
B.....2546	5.6	26 04.0	+3.66	+35 30 05.42	−15.809	−0.00325	−0.117
Green...4169	5.8	26 25.5	+5.74	+72 36 22.10	−15.776	−0.00514	−0.060
B.J.....357	4.5	26 32.6	+5.37	+70 13 35.85	−15.643	−0.00478	+0.075
B.....2550	4.5	26 35.3	+3.43	+23 21 54.62	−15.772	−0.00304	−0.051
B.J.....358	3.1	26 50.7	+4.03	+52 05 16.88	−16.281	−0.00349	−0.547
N.A.ξ. Leonis.	5.2	27 05.8	+3.24	+11 41 55.78	−15.833	−0.00285	−0.084
Gr.....628	5.3	27 08.2	+3.22	+10 06 46.21	−15.745	−0.00284	+0.009
Green...3301	6.4	27 08.6	+6.10	+74 43 09.12	−15.754	−0.00543	.....
B.....2559	4.6	27 23.7	+3.06	− 0 47 15.07	−15.783	−0.00269	−0.019
B.....2561	6.6	27 59.2	+3.69	+36 53 10.48	−15.841	−0.00325	−0.045
A.....3252	6.4	28 02.4	+3.11	+ 2 15 48	−15.81	−0.003	.....
B.....2565	4.7	28 39.9	+4.13	+52 27 07.86	−15.876	−0.00362	−0.044
B.J.....360	4.6	28 42.8	+3.69	+36 47 51.48	−15.861	−0.00323	−0.026
A.....3259	6.3	28 51.2	+3.44	+23 51 22	−15.85	−0.003	.....
Green...3726	7.0	29 22.1	+5.83	+73 29 00.63	−15.875	−0.00512	.....
Green...3727	7.0	29 23.2	+5.83	+73 28 57.27	−15.875	−0.00512	.....
B.....2570	5.0	29 27.2	+3.76	+40 01 16.71	−15.875	−0.00327	0.000
Green...2918	6.7	29 30.7	+6.25	+75 36 30.55	−15.883	−0.00550	.....
Gr.....629	6.7	30 06.7	+3.26	+13 03 21.34	−15.926	−0.00282	−0.013
G.....2706	6.8	30 15.0	+4.34	+57 22 18.73	−15.922	−0.00378	.....
B.....2573	5.6	9 30 15.9	+3.61	+36 13 03.06	−16.183	−0.00309	−0.265

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
Green...5208	6.8	9 30 19.1	+5.39	+70 40 09.74	−15.925	−0.00470	.....
B.....2576	6.6	30 57.9	+3.28	+14 46 53.54	−15.968	−0.00283	−0.014
Green...3728	7.0	31 01.8	+5.74	+73 09 01.48	−15.963	−0.00500	.....
B.....2578	5.8	31 22.7	+3.57	+31 33 55.87	−16.019	−0.00308	−0.042
Green...7190	6.3	32 01.0	+5.03	+67 40 42.10	−16.015	−0.00435	.....
Gr.....630	5.9	32 04.8	+3.31	+16 50 29.26	−16.019	−0.00284	−0.002
B.....2582	5.4	32 27.6	+3.17	+ 7 14 22.44	−16.040	−0.00270	−0.007
B.....2583	6.9	32 41.0	+3.44	+25 04 30.01	−16.072	−0.00293	−0.027
B.....2584	5.4	32 44.9	+3.76	+40 38 38.94	−16.055	−0.00321	−0.007
B.....2586	6.9	33 06.7	+3.28	+14 45 14.83	−16.163	−0.00278	−0.095
A.....3284	6.5	33 13.2	+3.04	− 2 45 57	−16.08	−0.003	.....
B.....2589	4.9	33 45.7	+3.13	+ 5 03 21.53	−16.165	−0.00264	−0.063
Gr.....631	6.7	33 51.8	+3.37	+20 42 13.16	−16.143	−0.00286	−0.032
B.J.....363	5.9	34 33.6	+5.20	+69 38 51.84	−16.217	−0.00441	−0.074
Green...4172	5.4	34 41.4	+5.60	+72 39 44.07	−16.190	−0.00476	−0.034
B.....2595	4.1	35 15.6	+3.07	− 0 44 02.16	−16.252	−0.00257	−0.072
Green...1866	6.4	35 20.7	+6.96	+78 32 44.53	−16.178	−0.00592	+0.011
Green...2921	6.6	35 38.5	+6.01	+74 59 52.53	−16.205	−0.00509	.....
G.....2725	6.1	36 15.9	+3.56	+31 41 13.62	−16.236	−0.00297	.....
B.J.....365	3.8	36 20.9	+3.21	+10 18 07.85	−16.273	−0.00266	−0.037
B.....2601	5.6	36 26.0	+3.73	+40 10 06.61	−16.289	−0.00311	−0.049
B.....2603	6.5	36 28.0	+3.46	+26 19 21.95	−16.289	−0.00289	−0.047
B.....2598	6.3	36 40.5	+7.31	+79 33 01.52	−16.277	−0.00616	−0.024
Gr.....635	6.3	36 48.3	+3.96	+48 50 30.03	−16.282	−0.00331	−0.019
G.....2730	6.3	36 53.8	+4.18	+54 46 29.76	−16.268	−0.00349	.....
A.....3305a	6.4	37 17.5	+3.63	+35 30 20	−16.29	−0.003	.....
Green...8727	6.2	37 32.6	+4.77	+65 23 44.37	−16.301	−0.00398	.....
B.....2608	5.8	38 16.9	+3.52	+30 23 18.83	−16.443	−0.00291	−0.109
B.....2612	5.8	38 49.9	+3.27	+14 26 01.28	−16.376	−0.00269	−0.014
Green...9560	6.5	39 00.6	+4.66	+64 04 04.17	−16.410	−0.00385	−0.034
Gr.....638	6.6	39 29.9	+3.34	+19 16 39.69	−16.476	−0.00273	−0.077
B.....2614	5.4	40 09.8	+4.28	+57 32 30.19	−16.404	−0.00350	+0.025
B.J.....367	3.0	40 44.7	+3.41	+24 11 20.61	−16.475	−0.00277	−0.017
Gr.....640	6.0	41 25.3	+3.17	+ 7 07 26.77	−16.531	−0.00255	−0.034
Gr.....641	5.9	41 32.5	+3.24	+12 13 29.82	−16.473	−0.00261	+0.029
B.....2623	5.9	41 45.0	+3.10	+ 2 12 07.35	−16.554	−0.00249	−0.046
B.....2624	6.6	42 35.7	+3.23	+11 59 05.37	−16.547	−0.00258	+0.003
B.....2626	5.3	42 47.4	+3.89	+46 26 26.67	−16.659	−0.00314	−0.099
Green...7928	6.3	43 21.0	+4.75	+66 00 46.21	−16.626	−0.00382	−0.033
B.J.....368	3.8	44 36.0	+4.30	+59 27 45.27	−16.802	−0.00339	−0.154
B.....2633	7.0	44 42.5	+3.70	+40 03 03.45	−16.661	−0.00293	−0.007
B.....2634	6.2	44 48.0	+3.36	+21 35 56.56	−16.681	−0.00265	−0.023
B.....2636	6.4	45 49.1	+3.12	+ 4 45 54.79	−16.772	−0.00244	−0.064
B.....2637	4.6	45 59.4	+4.11	+54 29 06.74	−16.707	−0.00323	+0.009
B.....2639	6.9	46 09.9	+3.25	+13 29 13.53	−16.751	−0.00254	−0.027
B.J.....370	6.2	46 42.0	+3.02	− 3 49 16.44	−16.780	−0.00235	−0.030
B.....2642	5.4	46 46.7	+3.41	+24 49 17.12	−16.947	−0.00266	−0.193
B.....2644	7.0	46 54.6	+3.65	+38 20 13.43	−16.790	−0.00285	−0.030
B.....2647	6.2	47 33.7	+3.10	+ 2 52 27.25	−16.701	−0.00238	+0.090
A.....3347	6.5	9 47 35.3	+3.08	+ 0 29 56	−16.79	−0.002	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.J.....371	4.0	9 47 38.9	+3.42	+26 25 52.50	−16.852	−0.00264	−0.057
G.....2760	6.8	48 15.4	+3.59	+35 24 28.10	−16.828	−0.00277	.....
G.....2759	6.7	48 29.9	+4.41	+61 32 26.93	−16.840	−0.00342	.....
Gr.....646	6.3	48 59.4	+3.15	+ 6 22 57.25	−16.863	−0.00242	.....
B.....2655	5.4	49 50.8	+3.94	+50 14 42.72	−16.882	−0.00301	+0.017
B.J.....372	6.3	50 21.6	+5.44	+73 18 28.88	−16.969	−0.00418	−0.045
G.....2769	6.6	50 21.8	+4.08	+54 40 14.16	−16.928	−0.00312	.....
B.....2660	6.2	50 57.5	+4.21	+57 50 49.58	−17.013	−0.00321	−0.062
B.....2662	6.8	51 14.9	+3.53	+32 48 39.72	−16.966	−0.00267	−0.001
B.....2663	6.2	51 39.8	+3.18	+ 9 21 35.53	−16.977	−0.00239	+0.007
B.J.....374	5.2	52 10.6	+3.69	+41 29 04.59	−17.035	−0.00276	−0.027
G.....2775	7.0	52 16.5	+3.80	+45 50 37.01	−17.017	−0.00286	.....
G.....2777	6.2	52 53.2	+3.93	+50 33 17.59	−17.047	−0.00294	.....
Gr.....649	6.3	53 21.6	+3.18	+ 8 44 37.25	−17.083	−0.00236	−0.015
B.....2672	5.5	53 23.0	+3.23	+12 52 27.53	−17.093	−0.00240	−0.029
B.....2673	5.8	53 40.5	+4.16	+57 14 33.81	−17.120	−0.00310	−0.043
Green....431	6.5	54 19.0	+10.12	+84 21 13.84	−17.099	−0.00762	+0.013
B.....2675	6.0	54 24.9	+3.47	+30 04 36.24	−17.161	−0.00256	−0.050
B.J.....376	6.7	55 03.0	+3.11	+ 3 48 55.46	−17.113	−0.00228	+0.027
B.J.....378	4.9	55 27.5	+3.17	+ 8 28 34.95	−17.183	−0.00232	−0.025
B.....2681	5.8	55 49.6	+3.47	+32 21 59.61	−17.616	−0.00251	−0.441
G.....2790	6.0	57 25.1	+3.90	+50 32 37.74	−17.251	−0.00282	.....
B.....2682	5.8	57 48.0	+3.35	+22 23 00.65	−17.282	−0.00241	−0.019
G.....2793	6.9	57 53.7	+3.69	+42 26 35.37	−17.273	−0.00266	.....
G.....2794	6.5	58 30.6	+3.60	+38 27 30.70	−17.440	−0.00258	−0.140
B.....2684	6.0	58 37.9	+4.01	+54 19 38.86	−17.311	−0.00288	−0.011
G.....2795	6.8	58 51.5	+4.07	+55 55 26.80	−17.315	−0.00292	.....
A.....3389	6.5	59 16.6	+3.96	+52 48 28	−17.34	−0.003	.....
B.....2685	6.7	9 59 28.7	+3.11	+ 3 38 21.84	−17.437	−0.00220	−0.100
G.....2803	7.0	10 00 31.1	+3.63	+40 01 12.72	−17.388	−0.00256	.....
B.....2693	6.5	02 05.1	+3.14	+ 6 03 02.39	−17.466	−0.00218	−0.015
B.....2692	4.5	02 07.5	+3.55	+35 41 01.17	−17.459	−0.00248	−0.006
B.J.....379	3.4	02 25.7	+3.28	+17 12 06.73	−17.472	−0.00227	−0.006
Green...9569	6.7	02 32.3	+4.44	+64 23 33.34	−17.458	−0.00310	+0.017
A.....3404	6.5	03 04.4	+3.48	+32 02 50	−17.50	−0.002	.....
Gr.....654	4.6	03 07.8	+3.19	+10 26 20.18	−17.538	−0.00219	−0.038
B.....2697	4.6	03 19.9	+3.07	+ 0 04 07.01	−17.516	−0.00211	−0.012
B.J.....380	1.3	03 34.8	+3.20	+12 24 26.54	−17.516	−0.00218	−0.001
B.....2700	7.0	04 32.0	+3.15	+ 6 36 43.82	−17.574	−0.00214	−0.018
B.....2701	6.7	05 33.7	+3.63	+41 06 15.30	−17.611	−0.00245	−0.012
G.....2824	6.0	05 53.0	+3.57	+37 50 44.10	−17.617	−0.00241	.....
B.....2711	6.7	06 47.9	+3.23	+13 47 58.49	−17.697	−0.00216	−0.047
Green...1566	6.7	06 53.9	+6.45	+79 23 34.09	−17.660	−0.00438	.....
G.....2828	6.7	07 59.7	+3.85	+50 56 30.03	−17.705	−0.00256	.....
Gr.....657	5.9	08 07.4	+3.12	+ 5 03 34.82	−17.691	−0.00206	+0.019
A.....3428	6.3	08 44.9	+3.40	+27 34 53	−17.73	−0.002	.....
G.....2831	6.2	08 55.6	+4.17	+60 25 54.54	−17.743	−0.00276	.....
A.....3432	6.2	09 32.9	+3.31	+21 36 59	−17.89	−0.002	−0.12
B.....2720	6.8	09 56.4	+3.45	+31 54 54.03	−17.797	−0.00225	−0.018
Green...3737	6.5	10 10 27.2	+5.14	+73 31 25.38	−17.904	−0.00337	−0.100

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		h m s	s	° ′ ″	″	″	″
Green...4684	6.1	10 10 36.4	+4.91	+71 30 38.49	−17.810	−0.00321	.....
B.....2724	5.6	11 07.9	+3.42	+29 45 33.00	−17.860	−0.00220	−0.034
G.....2839	6.6	11 22.1	+3.27	+18 11 17.46	−17.841	−0.00210	.....
B.....2727	6.7	11 22.3	+3.41	+29 07 58.84	−17.933	−0.00219	−0.097
A. E. 32 Urs. Maj.	5.7	11 30.7	+4.40	+65 33 27.89	−17.854	−0.00283	−0.013
B.....2728	6.2	11 33.4	+3.33	+23 57 02.10	−17.822	−0.00212	+0.021
B.J.....383	3.4	11 40.4	+3.63	+43 21 50.80	−17.897	−0.00232	−0.049
A.....3446	6.0	11 40.6	+3.37	+25 49 08	−17.85	−0.002	.....
B.J.....384	3.4	11 41.2	+3.34	+23 51 58.19	−17.856	−0.00215	−0.007
Gr.....661	5.7	11 51.0	+3.22	+14 10 38.48	−17.885	−0.00206	−0.025
G.....2843	6.8	11 54.4	+3.62	+41 55 00.88	−17.862	−0.00232	.....
B.....2734	6.1	12 17.6	+3.31	+23 33 28.16	−17.983	−0.00209	−0.110
Green....602	6.9	13 05.5	+8.16	+83 15 17.33	−17.921	−0.00527	−0.011
G.....2846	7.0	13 07.5	+3.63	+43 30 02.35	−18.001	−0.00230	−0.090
G.....2847	6.7	13 16.4	+3.84	+51 51 21.31	−17.916	−0.00243	.....
B.....2736	7.0	13 23.5	+3.67	+44 30 22.52	−18.221	−0.00232	−0.305
A.....3456	6.5	13 26.4	+3.73	+47 12 45	−17.86	−0.002	.....
A.....3457	6.2	13 52.1	+3.76	+48 51 05	−17.94	−0.002	.....
A.....3459	6.5	14 00.3	+3.36	+25 09 47	−17.94	−0.002	.....
Green...5815	5.8	14 12.5	+4.63	+69 12 01.21	−18.001	−0.00292	−0.048
G.....2852	6.5	14 27.3	+3.89	+54 13 47.10	−17.903	−0.00244	+0.060
B.....2740	6.4	14 42.3	+3.91	+54 40 07.49	−17.984	−0.00245	−0.016
B.....2741	5.1	14 50.4	+3.27	+19 55 40.07	−18.203	−0.00203	−0.231
A.....3468	6.4	15 00.6	+3.03	− 4 39 08	−17.99	−0.002	.....
N.A.γ^1Leonis.	2.5	15 00.8	+3.31	+20 17 49.68	−18.132	−0.00207	−0.152
B.....2743	3.8	15 01.0	+3.31	+20 17 46.90	−18.162	−0.00207	−0.182
B.....2744	7.0	15 40.5	+3.61	+42 18 07.07	−18.004	−0.00223	+0.001
G.....2860	7.0	16 12.7	+3.02	− 4 55 44.58	−18.030	−0.00185	.....
B.....2748	6.9	16 23.2	+3.10	+ 2 44 34.04	−18.030	−0.00190	+0.002
G.....2861	7.0	16 35.3	+3.02	− 4 57 46.28	−18.044	−0.00184	.....
B.....2745	5.6	16 42.7	+9.27	+84 42 36.62	−18.085	−0.00576	−0.040
B.....2750	6.0	16 49.8	+3.58	+41 41 11.53	−18.199	−0.00218	−0.150
B.J.....386	3.0	16 58.3	+3.59	+41 57 08.75	−18.030	−0.00218	+0.024
Gr.....667	6.1	17 00.0	+3.23	+15 25 46.76	−18.083	−0.00197	−0.022
B.J.....387	5.0	17 39.2	+4.37	+66 01 18.97	−18.099	−0.00267	−0.018
B.....2756	6.1	17 55.5	+3.47	+34 21 45.90	−18.112	−0.00210	−0.022
Gr.....669	6.3	18 17.9	+3.14	+ 6 59 59.22	−18.201	−0.00189	−0.091
A.....3486	6.5	18 36.5	+3.41	+30 04 18	−18.12	−0.002	.....
B.....2759	6.8	18 51.9	+3.07	− 0 26 46.25	−18.170	−0.00183	−0.045
B.J.....388	6.2	18 53.6	+3.03	− 3 37 08.27	−18.129	−0.00181	−0.002
B.....2761	5.9	18 58.4	+3.46	+34 10 26.05	−18.158	−0.00208	−0.028
A.....3494	6.5	19 34.0	+3.10	+ 2 49 30	−18.16	−0.002	.....
B. J. 30 H. Camel.	5.2	20 11.5	+7.63	+83 01 01.86	−18.144	−0.00459	+0.031
Gr.....671	5.9	20 30.7	+3.17	+ 9 14 33.07	−18.232	−0.00186	−0.040
B.....2765	6.8	20 33.7	+3.47	+35 53 01.50	−18.266	−0.00205	−0.077
B.....2768	4.9	20 45.5	+3.45	+34 15 16.37	−18.278	−0.00203	−0.083
A.....3502	6.4	22 07.1	+3.27	+19 49 23	−18.25	−0.002	.....
B.....2773	6.2	22 08.4	+3.57	+42 03 40.05	−18.334	−0.00207	−0.088
B.....2774	7.0	22 14.0	+3.03	− 3 55 48.36	−18.255	−0.00175	−0.005
G.....2878	7.0	10 22 30.8	+3.72	+49 25 21.07	−18.265	−0.00216	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....2775	6.7	10 22 30.9	+3.72	+49 15 56.59	−19.154	−0.00216	−0.894
B.J.....390	4.2	22 41.0	+3.48	+37 10 07.35	−18.372	−0.00201	−0.106
Gr.....673	5.9	22 53.8	+3.17	+10 13 16.82	−18.263	−0.00182	+0.015
A.....3508	6.5	23 11.7	+3.64	+45 40 21	−18.29	−0.002	.....
Green...7941	6.4	23 31.6	+4.30	+66 05 14.09	−18.316	−0.00248	−0.015
A.....3512	6.1	24 10.3	+3.04	− 3 16 52	−18.33	−0.002	.....
Green...9581	6.0	24 11.6	+4.22	+64 43 11.85	−18.325	−0.00242	.....
B.....2787	6.0	24 51.5	+3.51	+39 23 10.30	−18.347	−0.00199	−0.004
B.J.....394	4.8	24 52.5	+3.86	+56 26 32.63	−18.377	−0.00218	−0.033
B.....2788	5.3	24 54.5	+3.05	− 2 16 41.58	−18.364	−0.00171	−0.019
B.....2792	5.3	25 41.4	+3.07	− 0 10 30.99	−18.400	−0.00171	−0.028
B.....2798	6.1	26 45.0	+3.42	+32 50 29.76	−18.417	−0.00189	−0.008
B.....2795	6.8	26 48.6	+6.39	+80 57 31.85	−18.420	−0.00361	−0.008
G.....2897	7.0	27 07.6	+3.59	+44 38 41.03	−18.427	−0.00199	.....
Gr.....677	5.7	27 23.6	+3.21	+14 35 56.99	−18.413	−0.00176	+0.024
B.J.....395	4.9	27 28.3	+5.20	+76 10 37.33	−18.439	−0.00290	−0.004
B.....2802	4.9	27 59.1	+3.51	+40 53 20.01	−18.459	−0.00192	−0.007
B.J.....396	3.8	28 04.4	+3.16	+ 9 46 12.00	−18.460	−0.00172	−0.005
B.....2808	5.8	28 22.3	+3.44	+35 27 08.47	−18.486	−0.00187	−0.021
G.....2903	6.9	28 51.7	+3.68	+49 34 19.75	−18.488	−0.00200	.....
B.J.....398	5.2	29 22.4	+3.89	+57 32 47.35	−18.463	−0.00211	+0.036
G.....2904	6.9	29 51.2	+3.54	+42 22 27.66	−18.521	−0.00190	.....
B.....2816	5.4	30 06.4	+3.13	+ 7 25 01.95	−18.472	−0.00166	+0.052
B.....2817	5.9	30 18.9	+3.15	+ 9 06 56.12	−18.542	−0.00167	−0.011
B.....2819	6.5	31 11.7	+3.45	+36 47 37.47	−18.603	−0.00183	−0.043
G.....2910	6.3	31 37.8	+3.84	+56 53 52.34	−18.579	−0.00203	.....
G.....2912	6.8	32 27.2	+3.95	+60 35 48.59	−18.822	−0.00207	−0.216
B.....2824	6.9	32 46.1	+3.41	+34 32 44.64	−18.611	−0.00177	+0.001
B.....2828	5.8	33 31.1	+3.74	+54 08 17.88	−18.716	−0.00192	−0.081
B.....2829	4.9	33 39.5	+3.39	+32 26 38.17	−18.644	−0.00174	−0.003
B.....2831	6.0	33 59.1	+3.44	+38 22 45.75	−18.697	−0.00175	−0.046
Gr.....682	6.7	34 05.0	+3.22	+16 35 46.00	−18.666	−0.00164	−0.008
Green...1268	6.7	34 39.5	+6.12	+80 53 49.56	−18.669	−0.00316	+0.008
B.....2838	6.1	35 25.0	+4.32	+68 54 50.29	−18.714	−0.00218	−0.018
Green...7944	5.1	35 49.0	+4.13	+66 11 16.76	−18.791	−0.00208	−0.077
B.J.....403	5.1	36 38.3	+4.35	+69 32 50.01	−18.752	−0.00217	−0.018
B.J.....404	6.6	36 49.5	+3.05	− 1 16 05.75	−18.866	−0.00149	−0.125
B.....2847	6.5	37 08.9	+3.37	+32 10 04.93	−18.781	−0.00166	−0.030
N. A. 34 Sextantis	6.6	37 58.7	+3.10	+ 4 03 13.28	−18.749	−0.00150	+0.028
B.....2850	5.9	38 02.8	+3.81	+57 40 19.37	−18.835	−0.00186	−0.057
B.....2852	5.6	38 05.5	+3.30	+26 47 54.21	−18.844	−0.00160	−0.065
B.....2853	5.3	38 15.8	+3.54	+46 40 37.38	−18.858	−0.00170	−0.074
B.J.....405	5.2	38 31.5	+3.27	+23 39 35.53	−18.780	−0.00158	+0.013
Gr.....685	7.0	38 40.3	+3.12	+ 5 13 08.24	−18.802	−0.00150	0.000
Gr.....686	6.0	38 40.7	+3.12	+ 5 13 12.11	−18.802	−0.00150	0.000
Green...7221	6.3	38 49.7	+4.21	+67 53 00.96	−18.807	−0.00205	.....
A.....3588	6.5	39 24.3	+3.24	+20 13 54	−18.83	−0.002	.....
G.....2940	7.0	40 02.8	+3.55	+46 02 20.34	−18.844	−0.00169	.....
Gr.....688	6.6	40 31.2	+3.09	+ 2 57 40.83	−18.852	−0.00145	+0.006
B.....2865	6.7	10 40 44.5	+3.79	+57 50 27.13	−18.926	−0.00178	−0.067

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.J.....407	5.3	10 40 51.8	+3.34	+31 09 23.77	−18.900	−0.00157	−0.037
B.....2868	6.6	41 24.6	+3.13	+ 6 50 51.72	−18.917	−0.00145	−0.038
B.....2869	5.9	41 33.7	+3.24	+19 21 58.26	−18.931	−0.00151	−0.048
Gr.....691	6.8	41 33.7	+3.18	+13 13 20.46	−18.938	−0.00147	−0.049
Gr.....692	5.6	41 39.4	+3.18	+14 40 11.95	−18.955	−0.00147	−0.064
Green...8765	6.2	42 49.9	+4.05	+65 36 26.32	−18.925	−0.00187	.....
G.....2957	6.9	42 51.9	+3.45	+40 13 04.35	−18.927	−0.00158	.....
Green...9592	6.6	43 34.6	+3.98	+64 17 06.92	−18.947	−0.00182	.....
B.....2881	6.5	43 59.6	+3.32	+29 53 32.66	−19.007	−0.00149	−0.053
A.....3612	6.2	44 05.2	+3.06	− 1 29 01	−18.96	−0.001	.....
B.J.....409	5.4	44 31.7	+3.16	+11 01 17.86	−18.999	−0.00141	−0.030
B.....2887	6.3	44 57.1	+3.31	+28 26 57.29	−18.960	−0.00147	+0.021
B.....2890	6.0	45 38.6	+3.72	+57 03 32.06	−19.004	−0.00164	−0.003
B.....2891	5.9	45 44.7	+3.80	+59 47 53.57	−19.059	−0.00168	−0.056
A.....3624	6.2	46 32.1	+3.05	− 2 36 53	−19.03	−0.001	.....
B.....2895	7.0	47 06.7	+3.63	+53 02 37.87	−19.062	−0.00157	−0.021
B.....2896	6.8	47 08.4	+3.62	+52 58 57.30	−19.104	−0.00156	−0.062
Green...5233	6.1	47 22.1	+4.16	+70 20 01.36	−19.133	−0.00178	−0.079
A.....3628	6.4	47 59.6	+3.08	+ 0 16 38	−19.07	−0.001	.....
Green...2202	7.0	48 00.4	+4.95	+77 33 58.80	−19.071	−0.00215	.....
B.....2898	5.5	48 07.8	+3.65	+55 03 49.44	−19.086	−0.00155	−0.018
B.J.....412	3.9	48 16.9	+3.36	+34 42 01.07	−19.355	−0.00143	−0.282
B.....2900	4.9	48 48.2	+3.47	+43 40 09.27	−19.122	−0.00147	−0.035
A.....3632	6.2	48 50.5	+3.05	− 1 46 27	−19.17	−0.001	−0.08
B.....2903	6.0	49 08.8	+3.05	− 1 39 03.00	−19.092	−0.00127	+0.004
B.....2904	6.3	49 49.0	+3.26	+25 58 11.98	−19.120	−0.00135	−0.006
B.....2907	5.9	49 58.2	+3.34	+34 30 54.80	−19.186	−0.00139	−0.068
A.E. 54 Leonis	4.5	50 44.5	+3.25	+25 13 48.04	−19.156	−0.00133	−0.017
B.....2910	5.2	50 45.5	+3.33	+33 59 14.75	−19.183	−0.00136	−0.045
G.....2981	6.6	50 56.3	+3.71	+57 59 03.41	−19.148	−0.00152	.....
Gr.....697	6.1	51 04.6	+3.09	+ 1 13 00.81	−19.144	−0.00125	+0.008
B.....2912	6.3	51 06.6	+3.44	+42 29 26.58	−19.247	−0.00141	−0.100
Gr.....698	6.1	51 21.2	+3.12	+ 6 39 56.64	−19.132	−0.00126	+0.027
G.....2984	6.2	51 26.2	+3.23	+22 49 54.14	−19.141	−0.00131	+0.020
A.....3649	6.5	51 41.8	+3.27	+25 58 52	−19.17	−0.001	.....
B.J.....413	6.4	52 47.0	+4.90	+78 15 09.39	−19.217	−0.00197	−0.026
A.....3653	6.3	53 59.5	+3.58	+52 21 52	−19.22	−0.001	.....
B.....2920	5.3	54 25.8	+3.37	+40 54 39.72	−19.181	−0.00130	+0.050
B.....2921	6.4	54 31.7	+3.36	+36 34 35.93	−19.289	−0.00130	−0.056
B.....2922	5.7	55 04.9	+3.46	+46 00 32.03	−19.242	−0.00133	+0.005
G.....2995	6.2	55 08.5	+3.55	+51 59 07.24	−19.254	−0.00136	.....
B.....2924	6.3	55 14.7	+3.42	+43 23 50.78	−19.393	−0.00131	−0.142
Green..10096	6.3	55 25.2	+3.82	+63 54 19.54	−19.309	−0.00147	−0.048
B.....2926	5.2	55 48.1	+3.37	+39 41 43.99	−19.296	−0.00128	−0.031
N.A.d.Leonis.	5.0	55 54.8	+3.10	+ 4 06 03.14	−19.290	−0.00116	−0.022
Gr.....703	5.1	56 05.0	+3.11	+ 6 35 06.15	−19.277	−0.00117	0.000
B.J.....416	2.3	56 25.1	+3.64	+56 51 54.06	−19.253	−0.00137	+0.026
B.....2931	5.1	57 14.2	+3.06	− 1 59 59.83	−19.336	−0.00112	−0.037
Green...5242	6.7	57 24.5	+4.09	+70 30 57.00	−19.340	−0.00153	−0.032
B.....2932	4.4	10 57 31.6	+3.21	+20 39 45.52	−19.282	−0.00118	+0.024

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		h m s	s	° ′ ″	″	″	″
B.J.....417	1.8	10 58 11.0	+3.73	+62 14 13.37	−19.393	−0.00136	−0.072
B.....2936	6.4	58 38.3	+3.07	− 0 15 54.25	−19.444	−0.00110	−0.112
Gr.....706	6.2	59 00.2	+3.07	+ 0 29 01.66	−19.328	−0.00109	+0.017
B.....2940	6.1	59 31.2	+3.35	+38 43 34.95	−19.357	−0.00119	−0.005
Gr.....707	6.7	10 59 49.9	+3.15	+13 09 08.22	−19.364	−0.00111	.....
B.J.....418	4.8	11 00 22.5	+3.10	+ 7 49 21.89	−19.417	−0.00107	−0.046
G.....3018	6.5	01 57.8	+3.18	+18 13 28.22	−19.412	−0.00108	.....
Green...4196	6.9	02 17.4	+4.13	+72 26 46.85	−19.419	−0.00141	.....
A.E. p⁴ Leonis	5.7	02 18.8	+3.06	+ 2 26 39.75	−19.494	−0.00102	−0.087
B.....2951	6.7	02 50.8	+3.22	+23 48 36.89	−19.429	−0.00108	−0.003
Green...7227	6.1	03 58.2	+3.86	+67 41 54.54	−19.455	−0.00128	.....
B.....2956	5.8	03 59.5	+3.22	+25 08 44.78	−19.453	−0.00106	−0.002
G.....3028	7.0	04 05.2	+3.48	+51 52 00.05	−19.457	−0.00114	.....
A.....3703	5.9	04 22.5	+3.32	+36 47 51	−19.46	−0.001	.....
G.....3031	7.0	04 32.5	+3.52	+54 35 39.89	−19.468	−0.00115	.....
B.J.....420	3.0	04 36.5	+3.39	+44 59 13.07	−19.499	−0.00110	−0.036
A.....3706	6.0	04 36.6	+3.38	+43 41 43	−19.47	−0.001	.....
B.....2963	6.9	06 18.1	+3.50	+54 38 13.24	−19.468	−0.00111	+0.030
Green...6533	6.4	06 26.8	+3.87	+68 45 37.97	−19.506	−0.00122	.....
Green...7231	6.7	07 28.9	+3.82	+67 48 42.29	−19.527	−0.00118	.....
A.....3713	6.5	07 39.4	+3.30	+36 18 32	−19.53	−0.001	.....
A.....3716	6.5	08 41.3	+3.34	+41 34 40	−19.55	−0.001	.....
Gr.....712	5.4	09 09.2	+3.07	+ 0 25 12.83	−19.549	−0.00090	+0.011
Green...3326	7.0	09 18.7	+3.99	+73 57 46.32	−19.427	−0.00117	+0.136
B.J.....422	2.4	09 19.4	+3.20	+21 01 01.01	−19.694	−0.00094	−0.136
Gr.....714	5.9	09 21.3	+3.12	+ 8 33 11.67	−19.689	−0.00092	−0.125
B.J.....423	3.3	09 31.1	+3.15	+15 55 17.90	−19.643	−0.00092	−0.081
B.....2976	4.8	10 25.2	+3.20	+23 35 10.24	−19.585	−0.00091	−0.010
B.....2977	6.8	10 53.7	+3.47	+53 15 44.50	−19.540	−0.00100	+0.048
B.....2978	5.7	11 09.5	+3.14	+13 47 54.33	−19.619	−0.00089	−0.026
B.....2979	7.0	11 15.8	+3.14	+13 20 12.53	−19.674	−0.00088	−0.079
B.J.....424	6.1	11 37.8	+3.40	+49 58 03.14	−19.624	−0.00095	−0.022
B.....2982	4.6	12 05.2	+3.05	− 3 09 34.37	−19.654	−0.00084	−0.044
Gr.....716	5.4	12 39.5	+3.09	+ 2 30 19.70	−19.769	−0.00084	−0.144
Gr.....717	4.4	13 23.0	+3.21	+32 02 09.24	−20.211	−0.00085	−0.573
Gr.....718	4.9	13 23.2	+3.21	+32 02 07.04	−20.211	−0.00085	−0.573
G.....3065	6.9	13 30.3	+3.32	+42 48 32.79	−19.640	−0.00089	.....
B.J.....425	3.4	13 37.3	+3.25	+33 35 07.77	−19.615	−0.00087	+0.022
G.....3066	6.8	13 44.1	+3.59	+62 40 25.54	−19.644	−0.00096	.....
B.....2987	4.8	14 13.8	+3.28	+38 40 45.20	−19.732	−0.00087	−0.084
Gr.....720	6.0	14 17.8	+3.08	+ 2 08 38.25	−19.701	−0.00080	−0.047
Green...7234	6.3	15 24.1	+3.71	+67 35 41.48	−19.700	−0.00096	−0.027
B.J.....427	4.1	16 29.8	+3.10	+ 6 31 21.74	−19.698	−0.00077	−0.012
A.....3743	6.5	16 40.5	+3.47	+57 34 03	−19.70	−0.001	.....
Gr.....723	6.6	16 49.4	+3.08	+ 7 07 41.60	−19.692	−0.00076	+0.005
B.J.....429	6.2	17 31.0	+3.60	+64 49 23.47	−19.668	−0.00088	+0.034
G.....3078	6.3	17 47.9	+3.27	+40 40 07.79	−19.712	−0.00079	0.000
B.....2995	5.1	17 53.5	+3.31	+43 58 35.18	−19.733	−0.00080	−0.024
Gr.....725	6.3	18 41.5	+3.07	+ 0 37 34.06	−19.741	−0.00072	−0.015
G.....3082	6.8	11 19 01.9	+3.26	+37 43 44.22	−19.732	−0.00076	.....

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		h m s	s	° ′ ″	″	″	″
B.J.....430	4.0	11 19 14.0	+3.13	+11 01 30.19	−19.813	−0.00073	−0.084
Gr.....727	5.5	19 25.2	+3.08	+ 1 54 06.04	−19.730	−0.00071	+0.008
Gr.....728	6.0	20 18.9	+3.11	+11 55 29.40	−19.765	−0.00070	−0.014
B.....3007	6.0	20 52.9	+3.41	+56 20 38.05	−19.713	−0.00076	+0.042
B.....3008	6.0	20 54.9	+3.13	+16 57 04.19	−19.778	−0.00069	−0.023
B.....3011	6.7	21 12.6	+3.08	+ 4 21 20.48	−19.809	−0.00067	−0.049
A.....3762	6.5	21 36.9	+3.23	+33 56 41	−19.77	−0.001	.....
B.....3014	6.7	22 12.0	+3.04	+ 3 30 12.96	−19.600	−0.00063	+0.173
G.....3096	7.0	22 54.5	+3.24	+38 26 08.30	−19.888	−0.00068	−0.098
B.....3020	6.6	23 17.7	+3.07	− 1 12 16.37	−19.792	−0.00063	−0.003
N.A. τ Leonis.	5.2	23 18.6	+3.09	+ 3 21 07.33	−19.806	−0.00063	−0.017
B.....3022	6.0	23 56.5	+3.45	+62 16 05.47	−19.556	−0.00071	+0.242
B.....3023	5.4	24 13.5	+3.24	+39 49 56.47	−19.794	−0.00065	+0.009
G.....3108	5.9	24 41.8	+3.39	+57 14 04.44	−19.814	−0.00067	.....
A.....3772	6.5	24 47.2	+3.90	+57 14 06	−19.82	−0.001	.....
B.....3025	6.2	25 00.6	+3.13	+15 54 37.19	−19.871	−0.00061	−0.058
Gr.....732	6.7	25 01.1	+3.10	+ 8 05 45.34	−19.848	−0.00060	−0.030
G.....3114	6.4	25 12.4	+3.36	+54 51 33.95	−19.821	−0.00066	.....
A.....3777	6.5	25 30.7	+3.29	+47 09 10	−19.83	−0.001	.....
Green...1032	6.1	25 31.9	+4.36	+81 37 22.45	−19.779	−0.00085	+0.046
G.....3117	6.9	25 38.0	+3.24	+44 04 22.23	−19.770	−0.00062	+0.057
B.J.....432	6.1	25 39.2	+3.26	+43 40 02.45	−19.750	−0.00063	+0.072
G.....3116	6.8	25 40.6	+3.38	+57 14 32.33	−19.828	−0.00065	.....
B.....3029	5.1	25 43.0	+3.07	− 2 30 24.76	−19.839	−0.00058	−0.017
B.....3030	5.9	25 47.4	+3.14	+18 54 19.21	−19.821	−0.00059	+0.002
G.....3121	6.8	25 57.9	+3.26	+41 47 07.54	−19.924	−0.00062	−0.093
A.....3781	6.5	26 00.7	+3.30	+48 25 40	−19.83	−0.001	.....
B.J.....433	3.6	26 04.4	+3.60	+69 49 40.39	−19.848	−0.00068	−0.021
B.....3032	6.6	27 06.2	+3.10	+14 51 56.98	−20.036	−0.00056	−0.196
B.....3033	5.6	27 15.3	+3.42	+61 34 51.45	−19.920	−0.00063	−0.079
A.....3795	6.5	29 09.6	+3.20	+37 18 50	−19.99	−0.001	−0.12
Gr.....736	5.8	29 45.6	+3.07	+ 3 33 35.61	−19.966	−0.00050	−0.089
A.....3798	6.5	29 47.0	+3.06	− 5 01 49	−19.88	−0.001	.....
B.....3045	6.0	30 01.5	+3.13	+17 17 39.97	−19.879	−0.00051	−0.004
B.....3046	5.9	30 07.8	+3.32	+55 16 57.26	−19.880	−0.00055	−0.004
Gr.....737	6.6	30 23.6	+3.06	− 3 51 45.82	−19.900	−0.00049	−0.016
Green...5843	5.4	30 46.9	+3.55	+69 49 25.42	−19.999	−0.00058	−0.110
B.....3052	6.0	31 33.9	+3.16	+28 16 42.57	−19.912	−0.00049	−0.020
Green...1885	6.7	32 04.6	+3.84	+78 05 37.68	−19.880	−0.00059	+0.023
B.J.....437	4.4	32 20.4	+3.07	− 0 19 36.54	−19.864	−0.00045	+0.036
G.....3135	5.9	33 01.2	+3.27	+51 07 01.60	−19.913	−0.00047	.....
A.....3818	6.4	33 28.0	+2.99	+ 9 22 55	−19.91	0.000	.....
B.....3063	5.7	33 33.1	+3.21	+44 07 27.84	−19.965	−0.00045	−0.052
A.....3821	6.4	33 44.0	+3.24	+47 20 01	−19.94	0.000	−0.02
Green...9612	6.4	33 46.3	+3.40	+64 50 42.78	−19.908	−0.00048	+0.012
A.....3823	6.4	33 47.6	+3.18	+34 07 29	−19.92	0.000	.....
B.....3066	6.5	33 48.1	+3.06	− 1 56 17.05	−19.918	−0.00043	−0.003
Gr.....740	5.5	33 49.2	+3.09	+ 8 37 56.32	−19.921	−0.00043	−0.001
B.....3069	6.7	34 00.9	+3.17	+45 36 23.07	−19.898	−0.00043	+0.019
G.....3143	7.0	11 35 01.1	+3.22	+45 39 19.92	−19.933	−0.00043	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....3145	6.9	11 35 21.2	+3.35	+62 53 46.53	−19.935	−0.00044	.....
B.....3072	6.5	35 32.4	+3.30	+58 28 07.82	−19.914	−0.00043	+0.018
B.....3074	5.4	36 06.4	+3.12	+21 51 09.51	−19.992	−0.00039	−0.055
G.....3147	6.6	36 09.7	+3.33	+61 20 31.86	−19.943	−0.00042	.....
B.....3075	5.5	36 18.8	+3.17	+34 42 36.11	−20.329	−0.00039	−0.390
A.....3837	6.4	36 51.6	+3.28	+55 40 14	−19.95	0.000	.....
B.....3078	5.9	36 53.4	+3.13	+32 14 39.20	−19.933	−0.00037	+0.011
B.J.....440	5.4	37 27.7	+3.38	+67 14 35.26	−19.910	−0.00040	+0.040
B.....3083	7.0	38 51.5	+3.19	+42 13 18.92	−19.982	−0.00034	−0.021
A.....3847	6.2	39 32.1	+3.13	+25 43 02	−19.97	0.000	.....
Gr.....743	5.1	40 38.8	+3.09	+ 8 45 30.34	−19.988	−0.00030	−0.008
N.A. ν Virgin.	4.2	41 14.0	+3.08	+ 7 02 01.69	−20.165	−0.00028	−0.186
B.J.....441	3.8	41 18.1	+3.18	+48 16 42.43	−19.960	−0.00029	+0.020
B.....3093	5.6	42 06.9	+3.23	+56 07 43.84	−20.025	−0.00028	−0.040
G.....3162	6.9	42 16.9	+3.27	+61 54 10.60	−19.991	−0.00028	.....
Gr.....746	5.2	43 17.5	+3.08	+ 8 44 44.37	−19.974	−0.00024	+0.024
B.....3098	4.6	43 20.6	+3.10	+20 43 08.30	−20.013	−0.00024	−0.020
A.....3864	6.1	44 01.1	+3.09	+14 47 03	−19.99	0.000	+0.01
Green...7250	6.6	44 16.8	+3.30	+67 49 43.86	−20.005	−0.00024	.....
Gr.....747	6.2	44 25.9	+3.06	+ 0 10 53.36	−19.998	−0.00022	+0.007
B.J.....444	2.1	44 28.2	+3.06	+15 04 30.73	−20.118	−0.00021	−0.118
G.....3167	6.2	44 30.3	+3.08	+ 5 41 14.29	−20.206	−0.00022	−0.200
A.....3868	6.3	44 35.8	+3.11	+16 44 43	−20.00	0.000	.....
B.....3102	6.0	45 01.3	+3.13	+35 25 54.02	−20.015	−0.00021	−0.012
G.....3168	6.6	45 28.0	+3.19	+54 45 08.65	−20.012	−0.00021	.....
B.J.....445	3.5	46 00.4	+3.13	+ 2 16 18.88	−20.285	−0.00020	−0.276
Gr.....750	5.8	46 26.2	+3.07	− 4 49 58.04	−20.010	−0.00018	+0.006
A.....3877	6.4	46 29.2	+3.13	+33 52 29	−20.01	0.000	.....
A.E. Gr.1830	6.5	47 47.7	+3.47	+38 21 52.71	−25.800	−0.00043	−5.804
Green...3337	6.9	48 51.7	+3.30	+74 15 35.45	−20.028	−0.00015	.....
B.J.....447	2.3	49 06.1	+3.17	+54 11 42.49	−20.021	−0.00014	+0.002
G.....3178	6.5	49 10.4	+3.13	+41 24 55.12	−20.029	−0.00013	.....
B.....3120	6.8	50 25.0	+3.13	+46 58 38.55	−20.035	−0.00011	−0.007
B.....3121	5.8	50 26.1	+3.08	+ 8 56 39.30	−20.025	−0.00010	+0.004
B.....3123	5.7	51 02.9	+3.09	+16 08 51.11	−20.038	−0.00009	−0.007
B.....3125	6.2	51 16.6	+3.15	+57 05 58.61	−20.028	−0.00009	+0.003
G.....3183	6.8	51 24.1	+3.12	+41 08 57.36	−20.037	−0.00008	.....
G.....3184	7.0	51 44.0	+3.12	+42 30 51.96	−20.038	−0.00008	.....
Green...8789	6.7	51 53.6	+3.18	+65 44 39.71	−20.039	−0.00008	.....
G.....3185	6.2	52 11.7	+3.16	+62 03 04.92	−20.040	−0.00007	.....
G.....3188	7.0	52 36.9	+3.09	+40 50 47.00	−20.100	−0.00006	−0.059
G.....3190	6.6	53 39.5	+3.14	+61 57 56.31	−20.044	−0.00004	.....
B.....3132	6.7	54 27.1	+3.07	+ 1 01 51.24	−20.022	−0.00002	+0.018
A.....3903	6.2	54 40.0	+3.10	+33 40 05	−20.05	0.000	.....
B.....3135	5.5	55 20.3	+3.07	+ 4 09 22.77	−20.060	−0.00001	−0.018
Green...1042	6.4	55 37.9	+3.21	+81 21 18.72	−20.080	0.00000	−0.032
Green...5258	6.7	56 14.0	+3.13	+70 44 18.70	−20.044	+0.00001	+0.005
N.A. π Virginis	4.6	56 15.7	+3.07	+ 7 06 58.25	−20.075	+0.00001	−0.032
B.....3140	6.7	56 25.3	+3.07	− 1 15 54.94	−20.120	+0.00001	−0.076
Green...7984	6.8	11 56 46.2	+3.12	+66 37 26.86	−20.049	+0.00002	.....

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		h m s	s	° ′ ″	″	″	″
B.....3141	5.8	11 57 03.3	+3.08	+36 32 41.95	−20.142	+0.00003	−0.097
B.....3142	6.8	57 07.8	+3.08	+22 35 44.14	−20.064	+0.00003	−0.019
B.....3143	5.2	57 32.8	+3.06	+43 32 41.33	−19.982	+0.00004	+0.063
B.....3145	7.0	57 55.3	+3.05	+43 35 52.17	−20.566	+0.00005	−0.520
B.....3149	6.7	59 08.8	+3.06	+ 6 03 38.84	−20.136	+0.00007	−0.091
G.....3202	7.0	59 23.6	+3.08	+61 54 16.19	−20.051	+0.00007	.....
B.....3150	6.2	11 59 40.2	+3.08	+21 57 37.26	−20.058	+0.00008	−0.012
B.....3154	6.5	12 00 13.0	+3.00	+86 05 09.12	−19.958	+0.00009	+0.088
B.J.....450	4.1	00 37.5	+3.06	+ 9 13 58.04	−20.008	+0.00010	+0.038
B.J.....451	6.0	00 41.4	+3.10	+77 24 32.49	−20.142	+0.00010	−0.096
B.....3157	6.4	01 07.3	+3.05	+63 26 09.19	−20.121	+0.00011	−0.075
Gr.....757	6.5	01 23.3	+3.07	− 2 37 48.47	−20.074	+0.00011	−0.023
G.....3214	7.0	04 54.6	+3.05	+39 08 02.49	−20.110	+0.00018	−0.063
Gr.....758	6.1	05 04.6	+3.07	+ 2 24 11.15	−20.233	+0.00019	−0.187
Green...2952	6.4	05 25.5	+2.95	+75 09 43.23	−20.046	+0.00019	.....
Gr.....759	5.7	05 28.2	+3.06	+ 6 18 26.47	−20.006	+0.00019	+0.039
Green...2219	6.9	05 34.4	+2.92	+77 53 23.39	−20.045	+0.00019	.....
B.....3173	6.5	05 56.5	+3.06	+17 18 35.90	−20.048	+0.00020	−0.009
A.....3951	6.2	06 12.0	+3.06	+27 46 57	−20.05	0.000	.....
Green....813	6.3	06 58.1	+2.77	+82 12 37.77	−20.049	+0.00021	−0.007
B.....3179	6.7	07 16.0	+3.01	+57 33 19.55	−20.053	+0.00022	−0.017
B.....3180	6.0	07 17.3	+3.05	+26 22 17.71	−20.074	+0.00023	−0.038
B.....3181	5.9	07 34.8	+3.05	+21 02 34.81	−20.066	+0.00023	−0.031
Green...2222	6.6	07 35.1	+2.87	+77 56 28.06	−20.080	+0.00022	−0.040
B.J.....454	5.0	07 59.7	+2.85	+78 06 58.79	−20.011	+0.00023	+0.023
B.....3183	6.0	08 51.0	+3.06	+10 45 46.02	−20.064	+0.00026	−0.033
Green...7988	6.8	09 43.9	+2.94	+66 36 34.06	−20.033	+0.00027	.....
B.....3186	6.5	10 16.0	+2.99	+53 56 07.23	−20.047	+0.00028	−0.021
G.....3237	6.8	10 39.1	+3.05	+17 24 27.48	−20.030	+0.00029	.....
B.....3189	6.1	10 51.5	+2.88	+70 42 03.45	−20.046	+0.00029	−0.023
B.J.....456	3.4	10 58.6	+2.99	+57 31 57.36	−20.020	+0.00030	+0.003
B.....3192	5.3	11 26.0	+3.05	+15 24 00.08	−20.054	+0.00031	−0.033
Green...3767	6.6	11 28.1	+2.85	+73 03 06.98	−20.064	+0.00029	−0.038
B.J.....458	5.9	11 37.2	+3.02	+41 09 39.85	−20.066	+0.00031	−0.045
B.....3194	5.2	11 47.4	+3.04	+24 26 44.07	−20.038	+0.00031	−0.018
B.....3195	5.2	11 58.8	+3.02	+33 33 52.01	−20.135	+0.00032	−0.116
B.....3198	5.9	12 58.6	+3.03	+29 26 10.34	−19.984	+0.00034	+0.030
A.....3985	5.9	13 03.3	+2.97	+53 41 35	−20.02	0.000	.....
A.....3987	6.5	13 09.6	+3.05	+15 38 47	−20.02	0.000	0.00
Gr.....765	7.0	13 32.2	+3.08	− 3 27 17.61	−20.009	+0.00035	+0.008
A.....3990	6.5	13 59.3	+3.03	+30 45 12	−20.02	0.000	.....
Gr.....767	5.9	14 03.4	+3.07	− 0 17 13.39	−20.043	+0.00036	−0.029
B.....3204	6.5	14 13.6	+1.79	+86 56 09.77	−20.013	+0.00027	−0.006
N.A.B.A.C.4165	6.3	14 26.0	+0.33	+88 11 55.72	−19.948	+0.00011	+0.058
B.....3206	6.4	14 46.6	+3.03	+23 32 04.16	−20.027	+0.00037	−0.023
Green...2953	5.4	14 48.3	+2.73	+75 39 36.91	−20.003	+0.00034	+0.007
B.....3209	6.7	14 59.2	+3.01	+28 39 34.36	−20.146	+0.00037	−0.142
B.J.....460	3.7	15 18.1	+3.07	− 0 10 00.14	−20.024	+0.00038	−0.023
B.....3211	5.7	15 23.0	+2.97	+49 29 00.46	−20.009	+0.00038	−0.007
B.....3212	7.0	12 15 44.8	+3.00	+38 24 07.31	−19.998	+0.00039	0.000

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		h m s	s	° ′ ″	″	″	″
Gr.....770	5.1	12 15 46.7	+3.05	+ 3 48 48.64	−20.067	+0.00039	−0.063
A.....4002	6.5	15 47.1	+3.03	+26 30 02	−20.01	0.000	0.00
B.....3214	5.9	15 48.3	+3.02	+27 07 18.19	−20.117	+0.00039	−0.119
B.....3216	4.9	16 10.2	+3.03	+18 17 24.02	−19.918	+0.00040	+0.078
B.....3219	5.9	16 29.4	+2.93	+58 21 55.12	−20.065	+0.00039	−0.071
A.....4013	6.5	17 39.7	+3.03	+25 16 24	−20.00	0.000	.....
G.....3265	6.8	17 46.6	+2.88	+62 05 26.54	−19.991	+0.00041	.....
B.....3223	6.7	17 57.4	+3.05	+ 5 48 20.97	−20.045	+0.00043	−0.060
B.....3224	4.9	17 59.0	+3.02	+26 20 43.74	−19.999	+0.00043	−0.014
Gr.....772	6.7	18 37.7	+3.08	− 4 28 29.63	−20.021	+0.00045	−0.036
B.....3229	6.2	19 21.5	+2.96	+43 02 28.05	−19.970	+0.00045	+0.005
B.....3230	5.2	19 39.3	+2.93	+52 03 38.60	−19.966	+0.00045	+0.007
B.....3231	5.3	19 47.7	+3.01	+26 35 50.95	−19.994	+0.00047	−0.023
G.....3280	6.8	20 12.0	+2.97	+41 49 53.05	−19.974	+0.00047	.....
B.....3233	6.3	20 43.5	+3.02	+24 25 32.39	−20.012	+0.00048	−0.048
B.....3234	6.2	20 45.3	+2.89	+57 16 35.86	−19.987	+0.00047	−0.024
Green...9632	6.4	20 54.8	+2.82	+64 18 04.38	−19.954	+0.00046	+0.013
B.J.....461	5.3	21 25.1	+2.96	+39 31 04.34	−19.995	+0.00049	−0.036
B.....3240	5.2	21 54.1	+3.00	+27 45 59.93	−19.973	+0.00050	−0.018
B.....3242	4.6	22 27.2	+2.99	+28 46 06.90	−20.037	+0.00051	−0.087
B.....3244	5.1	22 29.4	+3.01	+27 19 26.59	−19.963	+0.00051	−0.013
Green...4224	6.4	22 30.5	+2.62	+72 25 43.17	−19.962	+0.00046	−0.008
B.....3247	6.3	23 14.4	+3.08	− 4 07 02.82	−19.952	+0.00054	−0.009
B.....3248	6.0	23 18.4	+2.87	+56 12 39.12	−19.962	+0.00051	−0.020
B.....3250	6.9	24 14.9	+3.00	+26 23 50.71	−19.968	+0.00055	−0.033
B.....3251	5.4	24 25.1	+3.00	+26 24 39.39	−19.955	+0.00055	−0.022
B.....3254	5.7	24 57.0	+3.01	+24 36 23.08	−19.935	+0.00056	−0.008
B.J.....466	6.0	25 12.1	+3.02	+21 23 39.74	−19.964	+0.00057	−0.039
Green...7262	7.0	25 20.1	+2.72	+67 23 29.41	−19.911	+0.00052	+0.018
B.J.....467	5.6	25 45.4	+2.81	+58 54 03.00	−19.832	+0.00055	+0.088
B.....3261	6.5	25 47.7	+2.85	+52 01 55.95	−19.905	+0.00055	+0.015
G.....3296	6.0	25 51.7	+2.82	+59 15 55.77	−19.924	+0.00055	.....
Green...5873	5.3	26 10.4	+2.65	+69 41 58.74	−19.973	+0.00053	−0.052
Gr.....776	5.4	26 31.0	+3.00	+25 03 52.22	−19.928	+0.00059	−0.011
B.....3267	6.4	26 33.5	+2.87	+53 34 08.90	−19.737	+0.00057	+0.174
G.....3301	6.6	26 40.2	+2.94	+40 04 44.62	−19.916	+0.00058	.....
A.....4064	6.2	26 47.0	+3.05	+ 8 06 04	−19.91	+0.001	.....
Green...7992	6.7	26 56.4	+2.71	+66 23 41.84	−19.913	+0.00055	.....
Gr.....777	6.3	27 01.0	+3.08	− 4 33 22.81	−19.877	+0.00061	+0.035
Green...4719	7.0	27 03.4	+2.59	+71 47 50.68	−19.912	+0.00053	.....
B.....3274	6.7	28 29.6	+3.04	+10 47 31.70	−19.892	+0.00063	0.000
B.....3276	6.4	29 05.1	+2.99	+24 46 46.65	−19.892	+0.00064	−0.007
G.....3311	6.8	29 06.9	+2.94	+38 33 56.35	−19.890	+0.00063	.....
B.....3278	5.7	29 13.0	+2.96	+33 44 41.13	−19.921	+0.00063	−0.037
B.J.....470	4.3	29 28.3	+2.86	+41 50 46.97	−19.600	+0.00061	+0.280
B.J.....472	3.6	29 38.8	+2.58	+70 17 03.21	−19.871	+0.00057	+0.007
B.....3283	4.9	30 22.0	+2.99	+23 07 28.45	−19.864	+0.00066	+0.007
B.....3284	6.8	30 35.5	+3.01	+18 52 20.96	−19.851	+0.00067	+0.016
B.J.....473	5.1	30 37.0	+3.01	+18 52 20.69	−19.849	+0.00067	+0.018
A.....4082	6.0	12 30 38.4	+3.00	+22 22 40	−19.87	+0.001	.....

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		h m s	s	° ′ ″	″	″	″
Green...5271	5.2	12 30 56.0	+2.56	+70 31 03.58	−19.868	+0.00059	+0.001
G.....3319	7.0	31 25.6	+2.92	+40 10 47.41	−19.863	+0.00067	.....
B.....3291	6.0	32 27.6	+3.01	+17 35 06.74	−19.874	+0.00070	−0.029
Green...5272	6.6	33 07.7	+2.52	+70 40 48.07	−19.843	+0.00061	.....
Gr.....783	6.3	33 29.2	+3.06	+ 3 46 38.74	−19.861	+0.00073	−0.023
Gr.....784	6.0	33 47.0	+3.06	+ 2 20 59.59	−19.855	+0.00074	−0.021
G.....3323	6.6	33 47.1	+2.79	+55 20 53.17	−19.834	+0.00068	.....
B.....3297	6.5	34 26.6	+2.89	+41 22 10.27	−19.851	+0.00072	−0.031
B.....3299	5.7	34 38.7	+2.99	+21 33 26.26	−19.838	+0.00074	−0.020
A.....4102	6.5	34 54.4	+2.93	+36 26 48	−19.82	+0.001	.....
B.....3306	6.5	37 02.3	+3.02	+10 55 11.98	−19.787	+0.00079	−0.002
B.J.....477	3.5	37 05.9	+3.04	− 0 57 21.46	−19.779	+0.00079	+0.005
N.A. ρ Virgin.	5.1	37 19.8	+3.04	+10 43 53.08	−19.887	+0.00080	−0.107
B.....3310	5.7	37 23.4	+3.04	+ 7 18 02.11	−19.793	+0.00080	−0.013
B.J.....478	6.2	37 38.3	+2.64	+63 12 25.45	−19.793	+0.00072	−0.017
B.....3317	6.3	39 00.7	+3.08	− 1 04 56.17	−19.847	+0.00085	−0.090
G.....3351	6.1	39 07.7	+2.65	+61 38 51.98	−19.759	+0.00074	.....
B.....3321	6.3	40 44.0	+2.85	+39 46 03.62	−19.600	+0.00081	+0.130
B.....3322	5.6	40 54.2	+2.83	+45 55 55.45	−19.725	+0.00082	+0.003
B.....3323	5.4	41 04.2	+3.03	+ 8 09 55.16	−19.724	+0.00087	+0.001
B.....3326	5.9	41 48.2	+3.05	+10 02 34.16	−20.169	+0.00090	−0.456
Green...1046	6.3	42 08.7	+1.51	+81 06 51.53	−19.748	+0.00049	−0.035
B.....3327	5.4	42 09.0	+3.00	+17 04 07.89	−19.713	+0.00088	−0.005
Gr.....790	6.1	42 41.8	+3.02	+12 26 59.46	−19.723	+0.00090	−0.019
N.A.35Virgin.	6.8	43 16.5	+3.05	+ 4 03 50.62	−19.701	+0.00092	−0.012
B.....3332	6.1	43 28.6	+2.58	+63 16 19.66	−19.696	+0.00080	−0.010
G.....3363	6.8	43 41.4	+2.75	+50 38 52.50	−19.716	+0.00085	−0.028
B.....3334	6.7	43 43.9	+3.01	+14 02 40.85	−19.727	+0.00091	−0.045
Green...7268	5.7	43 53.9	+2.46	+67 16 53.45	−19.700	+0.00077	−0.016
B.....3337	6.0	44 23.7	+3.01	+14 36 49.16	−19.707	+0.00093	−0.036
A.....4140	6.5	44 24.6	+2.93	+25 20 04	−19.68	+0.001	0.00
B.....3338	6.4	44 33.5	+2.77	+48 57 25.93	−19.665	+0.00087	+0.003
A.....4144	6.0	44 44.4	+2.63	+60 48 38	−19.67	+0.001	0.00
B.....3339	6.0	44 54.4	+2.93	+28 02 32.09	−19.652	+0.00091	+0.011
B.....3343	6.1	45 54.1	+2.86	+38 00 23.11	−19.631	+0.00091	+0.014
B.....3346	6.3	47 02.0	+3.05	+ 3 32 44.73	−19.613	+0.00099	+0.012
N.A. 31 Comae Ber.	5.1	47 18.9	+2.92	+28 01 49.01	−19.644	+0.00096	−0.024
B.....3348	6.7	47 43.7	+2.98	+17 33 47.81	−19.634	+0.00098	−0.021
A.....4158	6.5	47 59.0	+2.99	+16 36 44	−19.61	+0.001	.....
Green....630	6.0	48 19.9	+0.44	+83 54 25.96	−19.589	+0.00020	+0.018
A.E.32 H.Cam.	5.3	48 27.4	+0.43	+83 54 07.55	−19.583	+0.00020	+0.015
Gr.....795	6.2	48 34.6	+3.07	− 3 03 51.62	−19.610	+0.00102	−0.007
B.....3355	5.1	48 51.9	+2.96	+21 44 02.61	−19.623	+0.00100	−0.031
A.....4165	6.5	48 59.7	+3.09	− 3 44 02	−19.60	+0.001	.....
B.....3360	6.5	49 18.8	+3.01	+12 54 27.14	−19.617	+0.00102	−0.033
A.....4172	6.4	49 55.6	+2.88	+34 01 17	−19.58	+0.001	.....
B.J.....483	1.7	50 04.4	+2.65	+56 26 53.46	−19.581	+0.00093	−0.011
A.....4176	6.0	51 00.1	+3.75	+47 41 04	−19.56	+0.001	.....
B.J.....484	3.4	51 04.2	+3.02	+ 3 53 10.75	−19.613	+0.00105	−0.063
Green...2963	7.0	12 51 25.7	+1.89	+75 53 49.80	−19.549	+0.00070	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....3379	7.0	12 51 42.2	+2.62	+56 40 58.26	−19.543	+0.00094	.....
B.....3370	5.4	51 47.9	+2.81	+38 48 01.52	−19.488	+0.00100	+0.048
B.J.....485	2.8	51 49.2	+2.81	+38 48 15.30	−19.485	+0.00100	+0.050
B.J.....486	5.2	51 53.8	+2.40	+65 55 35.69	−19.568	+0.00086	−0.034
B.....3373	6.2	52 21.1	+2.64	+54 35 10.90	−19.532	+0.00095	−0.006
G.....3385	6.9	52 29.3	+2.78	+44 02 19.86	−19.528	+0.00100	.....
Green...8000	6.8	52 53.8	+2.37	+66 28 53.21	−19.519	+0.00087	.....
A.....4185	6.2	53 01.4	+2.75	+46 40 56	−19.52	+0.001	.....
Green...7271	6.7	53 31.0	+2.31	+67 43 44.57	−19.503	+0.00086	+0.004
B.....3374	5.0	54 28.5	+2.97	+17 53 39.48	−19.463	+0.00110	+0.019
G.....3391	6.7	54 45.3	+2.80	+40 19 45.92	−19.482	+0.00105	.....
Green...8819	6.6	54 46.0	+2.38	+65 24 39.78	−19.482	+0.00090	.....
Gr.....804	5.9	55 01.3	+3.09	− 3 19 36.20	−19.466	+0.00115	+0.010
Gr.....805	6.1	55 57.7	+3.08	− 2 53 05.57	−19.392	+0.00117	+0.064
B.....3379	5.2	55 58.1	+2.87	+31 16 12.61	−19.475	+0.00110	−0.024
G.....3396	6.2	56 07.7	+1.78	+75 57 27.36	−19.453	+0.00071	.....
G.....3395	6.8	56 07.9	+2.87	+32 15 51.85	−19.453	+0.00110	.....
A.....4193	6.3	56 14.4	+2.96	+18 51 21	−19.35	+0.001	+0.10
Green...7273	5.5	56 31.2	+2.27	+67 05 57.28	−19.453	+0.00088	−0.009
B.....3381	6.3	56 42.6	+2.97	+17 36 29.81	−19.468	+0.00114	−0.032
B.....3382	5.1	56 52.1	+2.58	+56 51 04.27	−19.455	+0.00102	−0.023
B.J.....488	2.8	57 41.8	+2.99	+11 26 33.71	−19.396	+0.00116	+0.018
B.....3385	6.2	58 16.1	+2.35	+64 05 36.92	−19.378	+0.00093	+0.024
G.....3400	6.5	58 58.8	+2.48	+60 12 00.11	−19.391	+0.00100	.....
B.....3388	6.9	12 59 16.1	+3.09	− 3 10 45.22	−19.420	+0.00123	−0.040
B.....3392	5.3	13 01 32.1	+2.81	+36 16 48.60	−19.317	+0.00117	+0.010
G.....3406	6.4	01 38.1	+2.77	+40 05 06.67	−19.330	+0.00116	.....
B.....3396	5.9	01 49.5	+2.71	+45 44 59.02	−19.292	+0.00114	+0.029
B.....3397	6.3	01 58.1	+2.93	+21 38 09.67	−19.371	+0.00122	−0.053
B.....3398	6.2	01 59.8	+2.92	+23 05 55.32	−19.374	+0.00122	−0.057
Green...3780	6.3	02 02.8	+1.86	+73 30 24.21	−19.288	+0.00081	+0.033
B.....3402	6.5	02 49.7	+2.38	+62 31 26.94	−19.342	+0.00102	−0.044
B.....3401	5.0	02 51.7	+2.88	+28 06 26.72	−19.382	+0.00122	−0.085
A.....4218	6.4	03 35.6	+2.88	+28 02 18	−19.29	+0.001	.....
B.....3406	6.0	04 42.0	+3.00	+10 30 08.16	−19.260	+0.00130	−0.008
A.....4225	6.0	05 22.5	+2.95	+17 19 44	−19.23	+0.001	+0.01
A.....4228	6.2	05 30.1	+2.78	+37 54 09	−19.24	+0.001	.....
B.....3411	6.5	05 33.6	+2.77	+39 00 47.28	−19.236	+0.00122	−0.004
B.....3412	4.4	05 36.6	+2.92	+18 00 18.46	−19.108	+0.00127	+0.122
B.J.....491	6.1	05 55.4	+2.76	+38 58 37.10	−19.191	+0.00122	+0.032
G.....3424	6.5	06 21.7	+2.33	+62 42 30.23	−19.217	+0.00105	.....
B.J.....492	4.2	07 40.5	+2.80	+28 20 02.92	−18.299	+0.00125	+0.879
A.....4242	5.9	08 04.4	+2.99	+12 02 05	−19.18	+0.001	.....
A.....4243	6.6	08 12.5	+2.94	+19 13 47	−19.17	+0.001	.....
G.....3431	6.5	08 47.0	+2.70	+43 06 11.46	−19.155	+0.00125	.....
A.....4247	6.2	08 50.4	+2.94	+19 12 22	−19.19	+0.001	−0.03
B.....3431	7.0	09 22.3	+3.05	+ 1 56 02.92	−19.207	+0.00141	−0.072
B.....3432	5.1	09 38.2	+2.73	+40 37 44.71	−19.128	+0.00127	−0.001
Green...7277	7.0	09 55.4	+2.06	+67 47 10.28	−19.112	+0.00098	+0.013
B.....3434	6.0	13 10 01.9	+2.99	+11 48 33.77	−19.171	+0.00140	−0.054

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
Green...7279	6.7	13 10 23.7	+2.06	+67 45 51.36	−19.109	+0.00099	+0.003
Green...3784	6.4	10 57.5	+1.72	+73 16 32.62	−19.146	+0.00085	−0.048
B.....3439	5.9	11 29.2	+2.70	+41 19 48.23	−19.080	+0.00129	−0.001
B.....3442	6.5	11 36.6	+0.48	+80 56 51.04	−19.069	+0.00031	+0.006
A.....4259	6.5	11 48.4	+3.08	− 0 54 53	−19.08	+0.001	.....
B.....3443	5.4	12 18.5	+2.98	+ 9 53 38.98	−18.871	+0.00142	+0.186
A.....4264	6.5	12 20.7	+2.94	+17 30 04	−19.07	+0.001	.....
B.....3445	5.6	12 48.5	+2.97	+14 08 56.59	−19.018	+0.00143	+0.025
A.....4267	(6.3)	12 53.5	+3.07	− 0 12 05	−19.05	+0.001	.....
B.....3446	5.0	13 03.6	+3.03	+ 5 56 37.55	−19.027	+0.00147	+0.009
B.J.....494	4.6	13 30.5	+2.69	+41 02 46.07	−19.015	+0.00132	+0.008
Green...6585	6.1	13 31.2	+1.98	+68 52 54.98	−19.029	+0.00099	.....
A.....4273	6.1	14 17.7	+2.78	+34 34 17	−19.01	+0.001	.....
B.....3450	5.2	14 25.0	+2.56	+50 09 18.23	−18.990	+0.00127	+0.008
A.....4275	6.3	14 56.1	+2.77	+35 36 02	−18.99	+0.001	.....
B.....3455	5.8	16 17.0	+2.69	+40 37 21.24	−18.965	+0.00137	−0.020
G.....3453	6.8	17 06.0	+2.72	+38 19 42.78	−18.927	+0.00139	.....
B.....3459	5.8	17 07.0	+3.05	+ 2 33 35.84	−18.975	+0.00155	−0.053
B.....3462	6.0	17 37.4	+3.02	+ 5 37 35.65	−18.947	+0.00154	−0.039
B.....3466	6.5	18 07.7	+2.62	+44 22 25.02	−18.892	+0.00136	0.000
Gr.....816	5.9	18 38.9	+3.10	− 4 27 14.22	−18.892	+0.00160	−0.010
G.....3463	6.4	19 49.2	+2.72	+37 30 13.11	−18.848	+0.00143	.....
Gr.....817	5.8	19 52.1	+3.12	− 4 41 39.12	−18.868	+0.00164	−0.022
A.....4296	6.4	20 03.5	+2.97	+12 53 58	−18.84	+0.002	.....
B.J.....497	2.2	20 18.2	+2.42	+55 23 42.58	−18.853	+0.00129	−0.025
Gr.....819	4.0	20 19.2	+2.42	+55 23 29.68	−18.866	+0.00131	−0.034
B.....3478	5.9	20 49.2	+2.86	+24 19 23.35	−18.827	+0.00152	−0.014
A.....4302	6.0	21 35.1	+3.08	− 0 43 29	−18.79	+0.002	.....
B.....3480	4.0	21 37.4	+2.41	+55 27 24.15	−18.812	+0.00131	−0.024
A.....4307	6.0	22 24.9	+2.58	+46 29 45	−18.77	+0.001	.....
B.....3483	6.8	22 55.4	+2.06	+63 43 23.14	−18.534	+0.00111	+0.215
B.J.....499	6.2	23 50.3	+1.53	+72 51 31.23	−18.734	+0.00088	−0.015
A.E.70Virgin.	5.2	24 01.7	+2.93	+14 15 33.27	−19.298	+0.00161	−0.586
A.....4312	(6.1)	24 03.4	+2.04	+65 12 03	−18.67	+0.001	+0.05
B.....3490	6.8	24 37.7	+3.08	− 0 53 50.56	−18.756	+0.00169	−0.061
B.....3492	5.9	24 45.5	+2.97	+11 17 04.63	−18.734	+0.00165	−0.043
B.J.....500	5.5	25 09.0	+2.21	+60 24 37.57	−18.641	+0.00124	+0.037
A.....4318	6.3	25 29.3	+3.01	+ 7 38 36	−18.67	+0.002	.....
Green...1597	5.9	26 10.4	+0.47	+79 06 31.77	−18.610	+0.00031	+0.040
B.....3500	6.3	27 21.6	+2.61	+42 34 07.94	−18.588	+0.00149	+0.019
G.....3494	6.3	28 32.4	+2.85	+24 48 49.92	−18.762	+0.00165	−0.189
B.....3506	5.0	29 34.2	+3.04	+ 4 07 15.19	−18.565	+0.00177	−0.031
B.J.....501	3.3	30 06.4	+3.05	− 0 08 09.86	−18.482	+0.00177	+0.035
G.....3500	6.3	30 23.3	+2.65	+39 14 58.72	−18.512	+0.00157	.....
B.....3509	5.8	30 39.8	+2.31	+55 48 33.93	−18.508	+0.00137	−0.010
B.....3512	4.8	30 46.7	+2.46	+49 28 32.99	−18.478	+0.00146	+0.015
B.J.....502	4.9	30 46.8	+2.68	+37 38 35.60	−18.507	+0.00159	−0.014
Gr.....831	5.8	30 50.3	+3.12	− 4 56 16.85	−18.401	+0.00183	+0.096
A.....4347	5.8	32 45.2	+2.83	+25 04 20	−18.43	+0.002	.....
A.....4350	6.5	13 33 00.4	+2.45	+49 56 48	−18.37	+0.001	+0.06

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		h m s	s	° ′ ″	″	″	″
B.....3518	5.0	13 33 27.8	+2.67	+36 45 08.33	−18.388	+0.00162	+0.014
Green...2235	6.7	33 31.2	+0.77	+77 00 21.44	−18.405	+0.00052	.....
B.....3523	6.9	34 06.7	+2.41	+51 10 20.72	−18.386	+0.00147	−0.007
Green...7284	6.8	34 21.8	+1.79	+67 29 42.73	−18.431	+0.00112	−0.055
B.J.....505	5.9	35 01.2	+1.44	+71 42 00.36	−18.348	+0.00091	0.000
B.....3526	5.7	35 08.3	+2.96	+11 12 11.03	−18.355	+0.00181	−0.011
G.....3521	6.5	35 42.1	+2.37	+52 15 37.73	−18.329	+0.00148	.....
B.....3530	5.5	36 01.6	+2.33	+53 22 33.38	−18.257	+0.00144	+0.055
A.....4364	6.4	36 10.1	+2.74	+31 27 53	−18.31	+0.002	.....
B.....3531	5.8	36 22.6	+2.87	+20 24 37.81	−18.290	+0.00178	+0.009
A.....4368	6.4	36 30.2	+2.78	+28 31 13	−18.30	+0.002	.....
B.....3533	5.9	36 46.9	+2.84	+22 57 05.00	−18.322	+0.00177	−0.037
A.....4372	6.5	36 49.5	+2.38	+50 58 24	−18.19	+0.002	+0.10
G.....3526	6.2	37 04.0	+2.21	+57 39 43.61	−18.279	+0.00140	.....
B.....3536	5.0	37 19.5	+2.28	+55 08 12.75	−18.279	+0.00144	−0.013
A.....4375	6.4	37 46.6	+2.96	+ 8 50 42	−18.25	+0.002	0.00
B.....3537	5.7	38 32.2	+3.01	+ 3 59 34.97	−18.300	+0.00190	−0.078
G.....3529	6.4	38 38.9	+2.57	+42 07 38.51	−18.222	+0.00164	.....
Green...8838	5.7	38 42.0	+1.87	+65 16 36.63	−18.218	+0.00122	+0.003
A.....4380	6.3	38 42.9	+2.68	+35 26 31	−18.22	+0.002	.....
Green...8839	6.6	39 20.9	+1.85	+65 43 35.67	−18.184	+0.00121	+0.013
B.....3541	6.5	39 30.1	+2.84	+23 09 14.00	−18.229	+0.00182	−0.043
G.....3536	6.7	39 42.3	+2.49	+45 58 21.37	−18.183	+0.00161	.....
Green...2237	6.6	39 47.6	+0.57	+77 17 51.63	−18.180	+0.00043	.....
A.....4387	6.3	40 25.5	+2.33	+52 30 59	−18.16	+0.002	.....
G.....3539	6.9	40 46.1	+2.23	+56 05 11.97	−18.145	+0.00146	.....
G.....3542	7.0	40 47.7	+2.06	+60 35 51.01	−18.143	+0.00136	.....
G.....3545	6.3	41 53.7	+2.22	+56 20 20.55	−18.462	+0.00147	−0.360
B.....3557	6.3	42 15.3	+0.21	+78 30 53.89	−18.044	+0.00020	+0.040
B.....3552	6.0	42 24.3	+2.55	+41 32 22.89	−18.136	+0.00168	−0.058
A.....4398	6.1	42 25.4	+2.61	+38 57 15	−18.08	+0.002	.....
B.....3554	6.5	42 29.8	+2.97	+ 6 48 09.88	−18.190	+0.00193	−0.115
B.....3555	6.2	42 32.6	+2.79	+26 09 12.25	−18.140	+0.00184	−0.067
B.J.....507	4.5	42 59.1	+2.85	+17 54 17.92	−18.027	+0.00186	+0.029
B.....3559	5.8	43 07.0	+2.59	+38 59 32.65	−18.084	+0.00172	−0.033
B.....3561	5.8	43 14.2	+2.24	+54 52 55.78	−18.057	+0.00150	−0.011
B.J.....509	1.8	43 59.8	+2.37	+49 45 43.83	−18.037	+0.00158	−0.020
B.....3568	6.9	44 17.2	+2.54	+42 29 49.28	−18.074	+0.00171	−0.068
B.....3570	5.9	44 35.1	+2.71	+31 38 13.44	−17.957	+0.00182	+0.038
Green....641	6.1	44 51.7	−1.85	+83 12 14.82	−18.034	−0.00112	−0.044
B.....3572	4.2	45 08.2	+2.89	+16 14 38.24	−17.941	+0.00194	+0.033
B.....3573	5.2	45 27.5	+2.84	+21 42 37.80	−17.958	+0.00192	+0.003
A.....4419	6.2	45 53.6	+3.01	+ 5 56 36	−17.94	+0.002	.....
A.....4425	6.2	46 49.4	+1.95	+61 56 21	−17.92	+0.001	.....
B.....3580	6.9	47 06.2	+2.65	+35 13 04.58	−17.919	+0.00182	−0.022
B.....3581	6.2	47 10.9	+2.65	+35 06 39.14	−17.966	+0.00182	−0.072
B.....3582	6.5	47 22.1	+2.07	+58 59 04.55	−17.883	+0.00143	+0.003
B.....3584	5.1	47 49.3	+2.65	+34 53 22.84	−17.905	+0.00183	−0.037
B.....3585	6.3	47 53.9	+2.94	+12 36 34.46	−17.882	+0.00202	−0.017
Green...6599	6.4	13 48 46.4	+1.47	+68 45 40.40	−17.885	+0.00105	−0.051

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		h m s	s	° ′ ″	″	″	″
B.J.....511	4.8	13 48 48.2	+1.75	+65 10 03.72	−17.831	+0.00124	−0.002
B.....3588	6.0	48 54.9	+2.87	+18 22 33.44	−17.837	+0.00199	−0.013
B.....3591	6.1	49 05.4	+2.72	+29 05 26.09	−17.803	+0.00189	+0.014
G.....3571	6.2	49 19.9	+2.54	+40 46 53.00	−17.813	+0.00178	.....
G.....3573	6.8	49 35.8	+2.51	+42 37 39.16	−17.802	+0.00176	.....
B.....3594	5.4	50 04.8	+3.08	− 1 03 38.30	−17.808	+0.00215	−0.030
Green...1600	6.7	50 19.0	−0.26	+79 26 23.99	−17.765	−0.00013	+0.008
B.J.....513	2.8	50 24.0	+2.86	+18 50 54.72	−18.129	+0.00200	−0.364
B.....3597	5.8	50 32.5	+2.21	+54 10 15.20	−17.775	+0.00156	−0.016
G.....3579	7.0	50 44.9	+2.60	+37 30 40.32	−17.756	+0.00184	.....
A.....4445	6.4	51 30.3	+2.91	+14 29 49	−17.73	+0.002	.....
B.....3600	6.1	51 52.7	+3.05	+ 1 29 25.81	−17.692	+0.00216	+0.012
A.....4448	6.5	52 11.3	+2.67	+32 28 15	−17.70	+0.002	.....
Green...1056	6.8	52 17.5	−0.97	+81 12 39.43	−17.694	−0.00059	−0.002
B.....3601	5.2	52 27.7	+2.74	+27 55 58.80	−17.737	+0.00196	−0.057
B.....3605	6.3	54 19.2	+2.90	+15 05 18.20	−17.668	+0.00209	−0.065
B.....3606	5.8	54 25.9	+2.81	+22 08 05.90	−17.650	+0.00204	−0.051
G.....3592	6.1	54 44.3	+1.87	+61 55 31.30	−17.383	+0.00139	+0.207
B.....3608	6.6	55 09.4	+3.11	− 3 06 42.22	−17.638	+0.00225	−0.069
Green...8847	7.0	55 59.0	+1.66	+65 19 50.78	−17.535	+0.00125	+0.004
A.....4466	6.2	56 53.2	+2.97	+ 9 19 48	−17.50	+0.002	.....
B.J.....516	4.2	57 03.9	+3.05	+ 1 58 46.81	−17.517	+0.00225	−0.030
B.J.....517	6.3	57 05.7	+2.72	+27 49 15.41	−17.478	+0.00201	+0.008
A.....4471	6.5	57 20.0	+2.86	+18 06 22	−17.53	+0.002	−0.05
A.....4475	6.4	58 07.4	+2.96	+10 07 18	−17.45	+0.002	.....
A.....4476	6.4	58 37.7	+2.38	+46 11 22	−17.42	+0.002	.....
A.....4478	6.4	59 06.9	+2.94	+11 13 44	−17.41	+0.002	.....
A.....4479	6.5	59 08.8	+2.98	+ 7 58 45	−17.40	+0.002	.....
A.....4480	6.4	59 24.7	+3.01	+ 5 19 59	−17.39	+0.002	.....
A.....4481	6.5	59 32.6	+3.13	− 4 56 56	−17.39	+0.002	.....
B.....3619	6.4	59 38.8	+2.23	+51 24 15.34	−17.390	+0.00169	−0.014
Green...5904	6.4	13 59 51.4	+1.32	+69 06 42.29	−17.363	+0.00103	+0.009
A.....4486	6.4	14 00 03.9	+3.04	+ 2 43 44	−17.37	+0.002	.....
B.J.....521	3.4	01 57.1	+1.62	+64 48 20.94	−17.258	+0.00126	+0.017
A.....4497	6.5	04 08.3	+2.76	+24 44 31	−17.18	+0.002	.....
B.....3630	5.6	04 19.9	+2.40	+44 16 55.78	−17.205	+0.00187	−0.037
B.....3631	5.6	04 55.7	+2.25	+49 52 58.65	−17.094	+0.00176	+0.040
B.....3634	6.7	05 58.9	+1.86	+59 45 49.49	−17.119	+0.00148	−0.020
Green...2976	6.3	06 13.3	+0.45	+75 01 11.67	−17.079	+0.00040	+0.000
B.J.....522	4.9	06 17.7	+2.74	+25 31 03.55	−17.148	+0.00216	−0.060
A.....4508	6.4	07 19.8	+2.62	+32 43 05	−17.04	+0.002	.....
B.....3639	5.1	07 42.4	+3.03	+ 2 49 57.68	−17.045	+0.00241	−0.030
Green...5905	6.5	08 20.3	+1.20	+69 17 12.53	−17.007	+0.00100	−0.010
B.....3644	6.0	09 02.2	+3.09	− 0 25 15.73	−17.084	+0.00249	−0.130
B.J.....524	5.0	09 11.0	−0.29	+77 58 13.56	−16.913	−0.00016	+0.030
B.....3650	5.7	09 45.4	+2.88	+13 22 51.74	−16.980	+0.00232	−0.060
B.....3652	6.2	10 14.4	+2.15	+52 12 30.31	−16.927	+0.00176	−0.050
B.....3654	4.9	10 15.6	+2.15	+52 12 37.79	−16.909	+0.00176	−0.050
A.....4523	6.5	10 16.4	+2.89	+14 23 33	−16.90	+0.002	.....
A.....4524	6.5	14 10 20.9	+3.03	+ 3 45 22	−16.90	+0.002	.....

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		h m s	s	o ′ ″	″	″	″
B.....3656	5.5	14 10 23.4	+1.10	+69 51 16.82	−16.951	+0.00093	−0.062
B.....3655	5.5	10 26.4	+2.94	+10 31 26.12	−17.056	+0.00238	−0.170
B.....3658	6.5	10 45.9	+2.42	+41 56 26.76	−16.992	+0.00198	−0.122
B.J.....526	1.0	11 33.4	+2.74	+19 39 02.21	−18.832	+0.00218	−1.999
G.....3642	6.1	11 50.1	+3.11	− 2 46 39.97	−16.825	+0.00254	.....
B.....3663	6.2	11 50.3	+2.82	+19 19 49.50	−16.861	+0.00231	−0.041
A.....4540	6.5	12 22.0	+2.79	+20 32 31	−16.89	+0.002	−0.09
B.J.....527	4.0	12 57.8	+2.28	+46 30 04.45	−16.614	+0.00188	+0.152
B.J.....528	4.6	12 58.7	+2.13	+51 46 55.45	−16.679	+0.00176	+0.086
A.....4545	6.2	13 10.3	+2.87	+15 40 45	−16.77	+0.002	.....
B.....3674	6.4	14 09.2	+2.13	+51 43 23.03	−16.720	+0.00178	−0.011
B.....3673	5.0	14 11.5	+2.54	+35 55 27.12	−16.711	+0.00212	−0.004
A.....4556	6.5	14 28.2	+2.24	+48 25 07	−16.70	+0.002	.....
B.....3678	5.2	14 54.1	+3.09	− 1 50 59.67	−16.751	+0.00257	−0.079
B.....3679	5.5	14 54.9	+2.90	+13 25 08.80	−16.710	+0.00243	−0.038
A.....4561	6.4	15 05.3	+3.06	+ 0 47 55	−16.67	+0.003	.....
G.....3655	6.8	15 13.9	+2.47	+39 10 50.45	−16.661	+0.00207	.....
B.....3681	5.1	15 29.6	+2.84	+16 43 07.39	−16.593	+0.00237	+0.050
G.....3659	6.5	15 56.7	+1.99	+55 16 38.64	−16.625	+0.00170	.....
B.....3684	6.3	16 06.0	+2.46	+39 12 25.91	−16.635	+0.00208	−0.021
G.....3660	6.8	16 42.2	+2.70	+26 29 15.12	−16.590	+0.00228	.....
Green...6611	6.7	18 08.6	+1.17	+68 11 39.37	−16.499	+0.00103	+0.019
A.....4571	6.5	18 17.1	+2.64	+29 46 52	−16.51	+0.002	.....
G.....3663	6.3	18 39.1	+3.07	+ 1 39 45.09	−16.992	+0.00261	−0.500
B.....3692	5.2	18 57.1	+2.95	+ 8 51 20.25	−16.498	+0.00252	−0.025
A.....4575	6.4	19 04.9	+2.71	+25 44 41	−16.47	+0.002	.....
Green...8862	7.0	19 05.0	+1.38	+65 46 25.38	−16.471	+0.00122	.....
A.....4577	6.2	19 34.7	+2.96	+ 8 39 08	−16.44	+0.003	.....
B.....3697	5.2	19 42.6	+2.98	+ 6 13 40.63	−16.435	+0.00256	0.000
A.....4582	6.4	19 52.8	+2.96	+ 8 29 45	−16.44	+0.003	.....
G.....3673	6.7	19 58.7	+1.67	+61 22 36.92	−16.427	+0.00147	.....
B.....3703	6.5	21 48.8	+2.45	+38 47 57.82	−16.349	+0.00214	−0.019
B.J.....531	3.9	22 08.0	+2.04	+52 15 59.15	−16.717	+0.00178	−0.404
N.A. f. Boötis.	5.4	22 16.2	+2.79	+19 37 52.09	−16.290	+0.00243	+0.015
B.J.....533	5.0	23 33.8	+3.09	− 1 49 29.81	−16.247	+0.00270	−0.007
A.....4599	6.4	24 33.0	+2.49	+36 35 58	−16.20	+0.002	.....
A.....4601	6.2	25 15.1	+3.06	+ 1 13 45	−16.15	+0.003	.....
B.....3715	5.8	25 30.0	+2.09	+50 14 50.06	−16.195	+0.00184	−0.054
A.....4604	6.2	25 58.4	+2.57	+32 11 28	−16.12	+0.002	.....
G.....3688	6.3	26 03.9	+2.36	+42 12 07.25	−16.315	+0.00212	−0.200
A.....4605	6.3	26 15.1	+3.00	+ 5 10 19	−16.10	+0.003	.....
A.E.5 Urs.Min.	4.4	27 42.1	−0.17	+76 05 46.17	−16.004	−0.00008	+0.026
B.J.....534	3.7	27 57.1	+2.59	+30 45 57.90	−15.899	+0.00233	+0.113
B.....3719	6.2	28 21.2	+2.66	+27 04 29.16	−16.039	+0.00240	−0.048
B.....3721	6.1	28 27.1	+2.73	+22 39 20.95	−15.956	+0.00246	+0.029
B.J.....535	2.9	28 27.3	+2.42	+38 42 05.59	−15.841	+0.00218	+0.145
A.....4615	6.4	28 38.7	+1.45	+63 35 00	−15.98	+0.001	.....
B.J.....536	6.4	29 16.2	+1.63	+60 37 19.09	−15.924	+0.00150	+0.019
Gr.....884	6.4	29 39.7	+2.45	+37 21 24.01	−15.926	+0.00224	.....
A.....4620	5.8	14 29 41.8	+1.88	+55 47 40	−15.92	+0.002	.....

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		h m s	s	° ′ ″	″	″	″
A.....4623	6.5	14 30 21.7	+2.55	+32 55 43	−15.89	+0.002	.....
A.E. σ Boötis.	4.5	30 45.7	+2.61	+30 08 08.71	−15.738	+0.00241	+0.133
B.....3730	6.9	30 48.4	+2.19	+47 10 48.75	−15.879	+0.00201	−0.019
G.....3705	6.2	30 57.8	+2.46	+37 01 16.36	−15.856	+0.00226	.....
B.....3733	6.1	31 30.8	+2.10	+49 45 37.58	−15.774	+0.00194	+0.049
Green...8868	6.6	31 42.0	+1.26	+65 47 17.98	−15.768	+0.00119	+0.049
A.....4631	6.5	32 02.8	+2.71	+23 38 29	−15.80	+0.003	.....
G.....3709	6.8	32 24.0	+1.41	+63 36 34.70	−15.779	+0.00133	.....
B.....3736	6.2	34 02.9	+2.79	+18 41 20.43	−15.778	+0.00260	−0.092
B.....3740	6.0	34 49.7	+2.25	+44 01 47.79	−15.621	+0.00211	+0.022
B.....3743	5.9	35 23.9	+1.90	+54 24 43.06	−15.635	+0.00180	−0.023
B.J.....540	5.5	35 29.3	+2.23	+44 47 33.58	−15.633	+0.00210	−0.026
Green...1313	6.5	36 05.9	−1.72	+80 02 56.56	−15.577	−0.00152	.....
A.....4644	6.4	36 16.6	+2.72	+22 21 40	−15.50	+0.003	+0.06
G.....3718	7.0	36 23.7	+2.40	+38 29 47.25	−15.561	+0.00228	.....
B.....3748	6.2	36 24.2	+2.87	+13 55 13.79	−15.591	+0.00271	−0.034
B.....3749	4.8	36 29.8	+2.82	+16 48 13.10	−15.549	+0.00266	+0.002
B.....3750	5.9	36 30.1	+2.82	+16 48 11.78	−15.544	+0.00266	+0.006
B.J.....543	3.6	36 51.0	+2.86	+14 06 50.03	−15.558	+0.00271	−0.027
Gr.....887	5.0	37 13.5	+2.95	+ 8 32 46.13	−15.529	+0.00279	−0.014
B.....3754	5.8	37 24.0	+2.88	+12 02 53.01	−15.613	+0.00272	−0.112
B.....3761	5.0	39 28.0	+2.64	+26 54 35.88	−15.408	+0.00253	−0.021
B.....3762	6.5	39 48.5	+1.49	+61 38 42.71	−15.402	+0.00147	−0.035
B.....3764	6.0	40 15.0	+2.33	+40 50 23.16	−15.320	+0.00224	+0.022
A.....4665	6.2	40 33.8	+3.08	− 1 02 15	−15.29	+0.003	+0.04
B.....3767	5.9	40 55.1	+3.05	+ 1 05 48.06	−15.320	+0.00294	−0.015
B.....3770	4.7	41 02.5	+2.80	+17 20 41.73	−15.357	+0.00270	−0.060
N.A. ϵ^3 Boötis	2.6	41 03.4	+2.62	+27 27 11.52	−15.286	+0.00253	+0.009
A.....4674	6.4	41 11.0	+2.77	+19 17 29	−15.25	+0.003	+0.04
A.....4676	6.4	41 27.7	+2.51	+33 10 12	−15.28	+0.002	.....
B.J.....547	3.7	41 41.9	+3.03	+ 2 16 17.82	−15.299	+0.00293	−0.039
G.....3739	6.2	41 51.6	+2.83	+15 30 33.71	−15.255	+0.00275	.....
A.....4687	6.1	44 16.6	+3.08	− 0 28 25	−15.12	+0.003	.....
A.....4689	6.1	44 24.0	+2.66	+24 44 25	−15.03	+0.003	+0.08
G.....3747	6.6	44 25.2	+2.98	+ 6 19 52.11	−15.110	+0.00292	.....
B.....3785	6.3	45 34.7	+2.36	+38 10 54.05	−14.933	+0.00231	+0.105
B.....3788	6.0	46 05.9	+2.58	+28 59 17.11	−15.016	+0.00257	−0.009
B.....3789	5.9	46 06.2	+2.14	+46 29 26.87	−15.096	+0.00213	−0.088
A.....4700	6.0	46 13.9	+2.68	+24 16 58	−14.97	+0.003	+0.03
B.....3790	5.1	46 20.9	+3.11	− 1 55 29.11	−15.131	+0.00308	−0.138
G.....3757	7.0	46 22.9	+1.82	+54 36 15.87	−14.997	+0.00183	.....
A.....4702	6.4	46 23.6	+3.07	+ 0 06 50	−14.99	+0.003	.....
G.....3758	6.5	46 37.0	+1.95	+51 44 48.05	−14.982	+0.00195	.....
B.....3793	6.3	46 37.7	+2.04	+49 05 24.81	−14.888	+0.00203	+0.089
B.....3795	5.6	46 56.5	+2.37	+37 38 26.92	−14.874	+0.00234	+0.085
B.....3798	4.8	47 14.1	+2.77	+19 28 26.39	−15.047	+0.00276	−0.106
Green....197	7.0	47 48.1	−10.84	+86 19 18.76	−14.913	−0.01050	0.000
G.....3766	6.4	48 52.9	+2.11	+46 50 48.68	−14.849	+0.00214	.....
B.J.....549	5.8	49 09.2	+1.52	+59 39 33.87	−14.700	+0.00153	+0.130
G.....3767	6.8	14 49 12.6	+2.97	+ 6 36 31.67	−14.831	+0.00300	.....

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		h m s	s	° ′ ″	″	″	″
A.....4716	6.2	14 49 19.5	+2.72	+19 30 47	−14.57	+0.003	+0.24
B.J.....550	2.0	50 57.4	−0.21	+74 31 24.00	−14.716	−0.00015	+0.007
B.J.....551	6.0	51 58.3	+2.83	+14 48 34.15	−14.681	+0.00288	−0.018
A.....4730	6.4	52 15.2	+2.49	+32 39 49	−14.65	+0.003	.....
B.....3814	4.6	52 28.9	+3.13	− 3 58 49.73	−14.796	+0.00317	−0.164
B.....3816	5.8	52 56.3	+3.07	+ 0 11 40.51	−14.636	+0.00314	−0.031
B.....3817	6.0	52 59.9	+2.80	+16 44 59.50	−14.621	+0.00286	−0.020
B.....3822	5.9	53 23.8	+1.99	+49 59 46.14	−14.809	+0.00206	−0.232
A.....4742	6.0	54 11.6	+3.15	− 4 37 34	−14.54	+0.003	.....
G.....3788	7.0	54 52.6	+2.63	+25 24 25.09	−14.492	+0.00272	.....
A.....4743	6.1	54 53.5	+2.99	+ 4 55 39	−14.29	+0.003	.....
Green...1927	6.5	55 09.5	−1.50	+78 32 24.55	−14.459	−0.00145	+0.017
Green...2986	7.0	55 36.2	−0.45	+75 14 33.97	−14.445	−0.00040	+0.004
B.J.....554	4.8	56 08.9	+0.94	+66 17 26.92	−14.377	+0.00100	+0.034
B.....3826	5.7	56 09.9	+2.30	+39 37 18.00	−14.386	+0.00238	+0.024
Green....838	5.7	56 19.6	−4.30	+82 52 55.46	−14.637	−0.00419	−0.232
B.....3828	5.8	56 39.2	+3.11	− 2 23 54.86	−14.409	+0.00322	−0.029
A.....4752	6.4	56 50.3	+2.69	+22 24 05	−14.37	+0.003	.....
B.....3831	5.9	57 12.3	+3.07	+ 0 12 54.34	−14.374	+0.00319	−0.028
G.....3798	7.0	57 51.2	+1.69	+55 58 23.64	−14.310	+0.00178	.....
A.....4757	6.5	58 04.3	+3.11	− 2 40 37	−14.30	+0.003	.....
B.....3834	4.9	58 09.9	+2.63	+25 21 47.96	−14.346	+0.00275	−0.058
Gr.....911	4.6	58 21.1	+3.03	+ 2 26 39.49	−14.269	+0.00316	+0.010
B.J.....555	3.3	58 33.4	+2.26	+40 44 42.31	−14.307	+0.00237	−0.043
Green...8884	7.0	58 33.6	+0.98	+65 49 55.74	−14.274	+0.00107	−0.007
B.....3840	6.1	59 20.5	+1.40	+60 33 28.28	−14.198	+0.00149	+0.017
B.....3841	5.8	14 59 30.4	+2.39	+35 33 27.31	−14.218	+0.00251	−0.013
Green...4267	6.7	15 00 19.5	+0.05	+72 07 01.37	−14.069	+0.00003	+0.088
B.J.....557	4.5	00 35.3	+2.57	+27 17 53.13	−14.153	+0.00271	−0.015
B.....3846	6.2	00 49.1	+1.98	+48 00 13	−14.099	+0.00206	+0.025
B.....3847	5.2	00 49.6	+1.98	+48 00 16	−14.093	+0.00206	+0.031
G.....3812	6.6	01 20.5	+1.40	+60 22 35.11	−14.095	+0.00151	.....
B.....3853	5.7	02 27.0	+1.99	+48 29 53.64	−14.008	+0.00212	+0.015
Green...8054	6.1	02 35.5	+0.91	+66 16 09.07	−14.022	+0.00100	−0.004
B.....3854	6.4	03 03.5	+2.35	+36 48 05.68	−13.969	+0.00250	+0.015
A.....4782	6.5	03 12.4	+2.97	+ 5 50 40	−13.98	+0.003	.....
A.....4783	6.2	03 12.7	+2.75	+18 47 21	−14.04	+0.003	−0.06
A. E. *c* Boötis	5.0	03 20.9	+2.63	+25 13 09.08	−14.150	+0.00283	−0.183
B.....3856	5.5	03 42.4	+1.71	+54 54 08.43	−13.944	+0.00185	−0.001
B.....3859	6.1	04 30.6	+2.59	+26 38 43.82	−13.922	+0.00278	−0.029
A.....4789	6.4	04 38.2	+2.84	+13 34 36	−13.89	+0.003	.....
B.....3860	6.2	04 40.2	+2.61	+25 27 09.50	−13.877	+0.00281	+0.006
G.....3823	5.9	05 28.2	+1.90	+50 23 55.80	−13.836	+0.00207	.....
G.....3827	7.0	06 07.5	+1.13	+63 27 38.21	−13.794	+0.00125	.....
Green...8056	6.8	06 59.9	+0.87	+66 07 49.39	−13.746	+0.00098	−0.007
B.....3867	6.1	07 58.5	+2.73	+19 18 50.89	−13.675	+0.00297	−0.002
Green...6631	6.2	09 46.6	+0.62	+68 07 09.98	−13.561	+0.00072	.....
B.....3881	6.5	10 10.0	+2.29	+38 36 04.82	−13.579	+0.00251	−0.047
A.....4818	6.1	10 24.8	+2.45	+32 07 25	−13.52	+0.003	.....
B.J.....562	5.5	15 10 42.9	+2.98	+ 5 16 22.51	−13.503	+0.00327	−0.007

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....3883	5.4	15 10 43.3	+2.51	+29 29 52.13	−13.474	+0.00275	+0.022
G.....3847	6.0	10 55.0	+2.17	+42 30 22.34	−13.487	+0.00239	.....
B.....3885	5.7	11 13.9	+3.05	+ 0 42 16.68	−13.467	+0.00335	−0.013
G.....3848	7.0	11 31.7	+2.28	+38 37 58.34	−13.448	+0.00252	.....
B.J.....563	3.2	11 52.5	+2.42	+33 39 00.41	−13.543	+0.00268	−0.122
B.J.....565	5.3	13 36.1	+0.68	+67 41 18.02	−13.705	+0.00083	−0.396
A.....4832	6.1	13 49.1	+3.07	− 0 07 57	−13.30	+0.003	.....
Green...5941	6.5	14 11.4	+0.42	+69 16 36.40	−13.274	+0.00052	.....
B.....3894	5.9	14 22.3	+2.69	+20 54 04.33	−13.291	+0.00299	−0.033
B.....3895	5.2	14 43.0	+3.06	+ 2 06 18.81	−13.764	+0.00344	−0.528
A.....4846	6.4	16 08.7	+3.09	− 2 05 00	−13.37	+0.003	−0.022
B.....3908	5.8	16 25.1	+2.48	+29 56 31.42	−13.182	+0.00278	−0.058
B.....3907	5.7	16 27.0	+3.05	+ 1 02 31.30	−13.235	+0.00342	−0.113
G.....3865	7.0	16 46.0	+2.18	+41 18 14.79	−12.935	+0.00246	+0.170
Green...4278	5.1	17 09.6	+0.08	+72 09 01.90	−13.064	−0.00001	+0.014
G.....3868	6.4	17 13.5	+2.59	+25 16 55.10	−13.074	+0.00292	.....
B.....3911	5.9	17 26.3	+1.76	+52 16 56.05	−13.055	+0.00200	+0.001
A.....4856	6.4	17 35.3	+2.07	+44 45 41	−13.05	+0.002	.....
Gr.....933	6.2	18 07.5	+2.84	+12 53 21.40	−13.032	+0.00321	−0.018
Green...3383	6.6	18 09.7	−0.56	+74 22 11.95	−13.012	−0.00057	.....
B.....3915	5.6	18 12.3	+2.40	+33 15 18.55	−13.011	+0.00271	−0.006
G.....3885	6.9	18 14.0	+1.09	+62 47 47.44	−13.007	+0.00127	.....
B.....3918	6.3	19 05.2	+3.09	− 0 42 07.00	−12.981	+0.00350	−0.035
B.....3922	5.9	19 17.6	+2.22	+39 54 07.48	−12.960	+0.00252	−0.027
B.....3923	5.2	19 29.2	+2.48	+30 36 44.06	−13.118	+0.00282	−0.198
B.J.....569	3.0	20 51.8	−0.12	+72 09 15.27	−12.811	−0.00008	+0.016
A.....4871	6.2	20 56.4	+1.11	+62 22 04	−12.83	+0.001	.....
A.....4870	6.3	21 03.1	+2.02	+45 35 19	−12.82	+0.002	.....
B.J.....568	4.1	21 05.4	+2.27	+37 41 32.48	−12.732	+0.00258	+0.081
B.....3927	6.8	21 06.8	+2.27	+37 39 45.55	−12.717	+0.0258	−0.093
B.....3930	6.0	21 08.1	+0.99	+63 39 44.59	−12.922	+0.00116	−0.113
B.J.....570	5.5	21 36.9	+2.78	+15 44 38.17	−12.800	+0.00318	−0.024
A.....4876	6.5	21 50.5	+2.70	+19 47 48	−12.74	+0.003	+0.03
B.....3933	6.2	22 45.9	+2.35	+34 38 56.00	−12.642	+0.00269	+0.057
B.J.....571	3.2	22 55.6	+1.33	+59 16 51.89	−12.674	+0.00155	+0.014
B.....3938	6.4	23 46.6	+2.58	+25 24 51.20	−12.669	+0.00297	−0.039
B.....3939	5.4	24 05.4	+3.03	+ 2 09 14.99	−12.655	+0.00348	−0.046
B.J.....572	3.7	24 07.1	+2.47	+29 24 55.64	−12.531	+0.00284	+0.076
G.....3910	7.0	25 10.4	+2.23	+39 02 02.56	−12.538	+0.00259	.....
A.....4887	6.4	25 50.7	+1.93	+47 30 39	−12.50	+0.002	.....
A.....4890	6.0	26 04.3	+1.19	+60 58 49	−12.48	+0.001	.....
G.....3912	6.9	26 04.5	+1.06	+62 35 11.96	−12.478	+0.00126	.....
G.....3914	6.5	26 37.4	+1.55	+55 30 08.85	−12.440	+0.00182	.....
B.J.....573	4.8	27 41.8	+2.15	+41 08 21.93	−12.375	+0.00252	−0.013
G.....3922	6.0	27 45.5	+1.06	+62 24 26.40	−12.362	+0.00127	.....
B.....3946	6.4	28 00.8	+2.76	+16 21 37.92	−12.357	+0.00322	−0.016
B.....3948	5.8	28 19.7	+3.09	− 0 52 53.63	−12.368	+0.00361	−0.049
B.....3949	5.1	28 33.6	+2.15	+41 12 15.64	−12.318	+0.00252	−0.015
B.J.....576	4.1	29 18.0	+2.42	+31 39 44.46	−12.278	+0.00284	−0.026
Green...9707	5.9	15 29 39.8	+0.83	+64 30 39.94	−12.150	+0.00099	+0.079

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
Gr.....946	4.2	15 30 30.1	+2.86	+10 50 21.07	−12.148	+0.00337	+0.024
G.....3929	6.5	30 31.6	+3.04	+ 1 58 11.39	−12.170	+0.00357	.....
B.J.....578	2.2	30 52.6	+2.54	+27 01 01.43	−12.241	+0.00300	−0.098
B.....3963	6.3	31 28.1	+2.72	+17 57 16.66	−12.130	+0.00320	−0.029
A.....4923	6.4	31 36.5	+2.85	+11 33 53	−12.10	+0.003	.....
G.....3937	6.9	31 44.6	+2.03	+44 21 52.84	−12.085	+0.00241	.....
B.....3966	6.8	31 56.5	+3.08	− 0 15 48.15	−12.090	+0.00363	−0.022
B.....3967	5.5	31 56.7	+2.20	+39 18 30.43	−12.074	+0.00261	−0.006
B.....3968	5.6	32 10.0	+2.88	+10 18 38.31	−12.188	+0.00341	−0.136
B.....3970	6.1	32 20.4	+2.76	+16 24 59.57	−12.048	+0.00327	−0.008
A.....4934	6.5	32 29.5	+2.22	+38 40 19	−12.03	+0.003	.....
G.....3945	6.1	32 53.2	+1.59	+54 13 11.40	−12.005	+0.00191	.....
G.....3946	6.4	33 12.4	+2.45	+30 17 20.80	−11.983	+0.00291	.....
B.....3977	6.0	33 38.2	+1.54	+54 55 38.05	−11.966	+0.00184	−0.016
Green...6637	6.9	33 58.3	+0.40	+68 06 23.69	−12.089	+0.00052	−0.160
Green...2261	5.4	34 04.1	−1.85	+77 38 57.48	−11.921	−0.00214	+0.002
Green...1323	6.5	34 22.5	−3.61	+80 44 51.99	−11.779	−0.00431	+0.120
B.J.....580	5.3	34 35.7	+2.15	+40 38 45.62	−11.830	+0.00258	+0.052
G.....3955	6.1	35 13.2	+1.54	+54 48 10.75	−11.842	+0.00187	.....
Green...1071	7.0	35 19.0	−3.80	+81 04 17.31	−11.801	−0.00442	+0.034
A.....4948	6.3	35 20.2	+2.32	+34 58 05	−11.83	+0.003	.....
B.....3985	6.0	35 23.2	+1.92	+47 05 37.56	−11.964	+0.00232	−0.138
A.....4951	6.4	35 55.1	+2.84	+12 20 38	−11.80	+0.003	.....
G.....3959	6.0	35 56.4	+1.75	+50 42 59.62	−11.791	+0.00212	.....
A.E.ξ Coronae Bor.	5.1	35 59.3	+2.26	+36 55 39.23	−11.795	+0.00271	−0.001
G.....3964	7.0	36 40.0	+1.35	+57 48 44.51	−11.738	+0.00165	.....
B.....3992	6.2	36 50.8	+2.76	+16 18 51.66	−11.745	+0.00331	−0.022
G.....3965	6.9	36 52.6	+1.35	+57 45 11.89	−11.723	+0.00165	.....
G.....3969	6.5	37 10.1	+1.32	+58 12 53.74	−11.703	+0.00161	.....
Green....843	6.9	37 16.2	−5.22	+82 33 46.76	−11.715	−0.00613	−0.018
Green...5950	5.9	37 23.9	+0.16	+69 34 24.88	−11.686	+0.00023	.....
B.....3994	4.6	37 32.2	+2.67	+19 57 34.50	−11.729	+0.00321	−0.055
B.....3993	5.3	37 33.2	+2.82	+13 08 07.96	−11.697	+0.00340	−0.025
B.....3995	6.1	37 51.7	+2.70	+18 45 00.44	−11.608	+0.00324	+0.043
B.J.....581	3.8	38 57.8	+2.52	+26 34 48.71	−11.538	+0.00303	+0.034
B.....4000	6.1	39 30.1	+3.01	+ 2 48 11.63	−11.684	+0.00364	−0.150
B.J.....582	2.5	39 50.0	+2.95	+ 6 42 29.56	−11.468	+0.00359	+0.042
B.....4004	5.6	40 23.8	+1.63	+52 38 40.16	−11.447	+0.00199	+0.022
B.....4003	5.8	40 26.4	+2.36	+32 47 57.75	−11.491	+0.00287	−0.025
B.....4005	6.3	40 36.8	+2.72	+17 32 47.70	−11.468	+0.00330	−0.014
Green....326	7.0	40 52.8	−9.81	+85 07 29.18	−11.493	−0.01170	−0.055
B.....4007	5.8	40 56.4	+2.96	+ 5 43 44.61	−11.453	+0.00360	−0.023
A.....4976	6.5	41 04.6	+3.05	+ 1 10 22	−11.42	+0.004	.....
B.....4008	5.6	41 26.2	+3.10	− 1 31 22.09	−11.435	+0.00377	−0.041
B.J.....583	3.4	42 02.0	+2.77	+15 42 10.45	−11.406	+0.00338	−0.055
B.....4010	4.5	42 04.4	+2.91	+ 7 38 04.40	−11.413	+0.00353	−0.064
Green...1325	7.0	42 18.1	−3.83	+80 54 05.74	−11.281	−0.00456	+0.053
G.....3982	7.0	42 53.3	+1.61	+52 57 25.12	−11.293	+0.00199	.....
B.....4012	6.0	43 06.5	+2.78	+14 23 31.79	−11.247	+0.00339	+0.027
A.....4991	6.2	15 44 01.7	+2.80	+14 04 07	−11.35	+0.003	−0.14

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....4014	5.8	15 44 13.9	+3.14	− 3 32 35.71	−11.189	+0.00384	+0.004
A.....4994	6.0	44 26.3	+1.44	+55 44 58	−11.18	+0.002	.....
Green...1326	6.9	44 32.8	−3.40	+80 15 57.33	−11.127	−0.00410	+0.046
B.J.....584	4.0	44 41.3	+2.70	+18 25 08.16	−11.258	+0.00331	−0.098
B.J.....585	3.3	44 55.3	+3.13	− 3 09 19.45	−11.174	+0.00383	−0.031
B.J.....587	5.3	45 17.5	+0.91	+62 52 38.98	−11.177	+0.00115	−0.062
B.....4022	6.1	45 27.4	+1.44	+55 39 07.23	−11.101	+0.00180	+0.003
B.....4023	5.4	45 44.9	+3.03	+ 2 28 14.00	−11.138	+0.00373	−0.055
G.....3997	7.0	45 47.8	+1.16	+59 50 39.44	−11.081	+0.00145	.....
B.....4024	4.7	45 49.2	+2.52	+26 20 35.68	−11.158	+0.00309	−0.081
B.J.....588	3.5	46 19.7	+2.99	+ 4 44 52.92	−10.981	+0.00370	+0.059
B.....4028	5.2	46 34.2	+3.12	− 2 49 07.43	−11.057	+0.00384	−0.034
B.J.....590	4.3	47 15.0	−2.22	+78 04 18.38	−10.974	−0.00264	−0.001
B.....4031	5.0	47 18.7	+2.63	+21 14 51.68	−10.968	+0.00325	0.000
B.....4032	5.0	47 50.4	+2.26	+35 56 09.44	−11.294	+0.00280	−0.364
G.....4009	6.2	48 48.4	+1.57	+53 10 34.18	−10.862	+0.00197	.....
A.....5025	6.5	48 52.0	+2.71	+17 40 16	−10.86	+0.003	0.00
B.....4040	6.3	49 00.5	+2.79	+13 28 40.07	−11.406	+0.00345	−0.563
A.....5028	6.5	49 27.6	+2.74	+16 20 32	−10.82	+0.003	.....
B.....4042	4.7	49 33.8	+2.07	+42 42 10.28	−10.184	+0.00264	+0.620
B.....4047	6.2	50 10.9	+1.39	+56 05 32.44	−10.701	+0.00176	+0.056
B.....4046	6.5	50 19.3	+2.90	+ 8 50 40.91	−10.761	+0.00361	−0.014
B.....4048	6.0	50 36.6	+2.64	+20 34 27.21	−10.687	+0.00329	+0.039
Green...1075	7.0	50 40.8	−4.24	+81 12 20.58	−10.729	−0.00517	−0.007
B.....4054	5.7	51 37.7	+2.00	+43 24 00.99	−10.592	+0.00250	+0.058
B.J.....591	3.7	52 17.7	+2.77	+15 57 17.06	−11.896	+0.00349	−1.295
B.....4056	5.8	52 28.8	+2.02	+42 49 38.53	−10.588	+0.00254	0.000
B.....4057	5.7	52 31.1	+2.18	+38 12 23.03	−10.512	+0.00275	+0.072
Green...8908	6.8	52 36.2	+0.58	+65 33 03.06	−10.580	+0.00076	.....
B.....4060	5.8	53 05.4	+2.77	+14 40 18.19	−10.467	+0.00346	+0.074
Green...5963	6.8	53 24.7	+0.11	+68 59 00.91	−10.520	+0.00018	.....
B.J.....593	4.0	53 51.6	+2.48	+27 08 16.61	−10.553	+0.00312	−0.068
A.....5058	6.5	54 04.9	+1.16	+59 10 14	−10.48	+0.001	.....
G.....4028	6.0	54 19.8	+2.12	+39 57 06.33	−10.452	+0.00268	.....
B.....4069	6.0	55 38.2	+2.21	+36 53 55.24	−10.328	+0.00281	+0.024
B.J.....595	5.1	55 39.2	+1.42	+55 00 13.46	−10.239	+0.00179	+0.111
B.....4074	6.2	56 23.0	+2.98	+ 4 40 42.89	−10.229	+0.00377	+0.066
A.....5071	6.3	56 31.0	+1.70	+50 08 16	−10.29	+0.002	.....
Green...3006	7.0	57 08.7	−1.48	+75 49 56.80	−10.255	−0.00180	−0.015
B.....4075	5.4	57 11.6	+2.69	+18 03 59.14	−10.091	+0.00341	+0.144
B.....4077	5.5	57 36.1	+2.29	+33 34 28.16	−10.985	+0.00289	−0.781
B.....4080	5.1	57 50.2	+2.40	+30 06 08.33	−10.210	+0.00305	−0.024
B.....4081	4.9	58 25.1	+2.58	+23 03 12.98	−10.127	+0.00329	+0.015
G.....4042	6.8	58 54.0	+2.09	+40 16 17.37	−10.109	+0.00268	.....
A.....5083	6.3	59 18.7	+2.96	+ 5 14 02	−10.05	+0.004	+0.03
B.....4085	6.3	59 47.6	+1.53	+53 09 55.77	−10.075	+0.00197	−0.037
B.....4089	4.8	15 59 59.7	+1.87	+46 17 09.93	−10.091	+0.00240	−0.068
B.....4088	6.1	16 00 00.8	+2.21	+36 52 46.21	−10.044	+0.00282	−0.022
B.J.....598	3.8	00 12.1	+1.12	+58 48 19.40	− 9.667	+0.00140	+0.340
A.....5099	6.3	16 01 31.3	+1.09	+59 39 28	− 9.91	+0.001	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....4057	6.5	16 01 50.5	+2.07	+39 23 56.83	− 9.835	+0.00267	+0.050
G.....4061	6.8	03 15.8	+1.03	+60 17 14.84	− 9.778	+0.00135	.....
B.....4098	5.9	03 19.7	+2.86	+10 07 55.15	− 9.784	+0.00368	−0.014
A.....5108	6.3	03 28.2	+2.60	+22 03 50	− 9.77	+0.003	.....
A.E. κ Hercul.	5.3	04 00.7	+2.70	+17 17 09.55	− 9.741	+0.00348	−0.014
B.....4102	6.6	04 01.1	+2.71	+17 17 38.73	− 9.756	+0.00348	−0.039
B.....4103	6.1	04 07.6	+2.89	+ 8 46 22.35	− 9.727	+0.00372	−0.018
G.....4066	6.6	04 18.8	+1.79	+47 44 40.17	− 9.698	+0.00232	.....
A.....5113	6.1	04 29.2	+3.00	+ 3 41 30	− 9.68	+0.004	.....
B.....4104	6.4	04 43.1	+2.70	+17 26 38.41	− 9.701	+0.00349	−0.038
A.....5115	6.2	04 44.9	+2.94	+ 6 38 21	− 9.66	+0.004	.....
B.....4106	5.6	05 07.9	+3.14	− 3 13 49.64	− 9.647	+0.00405	−0.015
Green...5339	6.8	05 08.0	−0.23	+70 30 07.58	− 9.607	−0.00025	+0.028
Green...3842	7.0	05 15.1	−0.87	+73 23 15.55	− 9.545	−0.00108	+0.080
B.....4108	5.1	05 40.8	+2.19	+36 43 08.24	− 9.271	+0.00284	+0.319
B.J.....601	4.0	05 56.0	+1.89	+45 10 13.51	− 9.539	+0.00245	+0.031
A.E.Groom 2320	5.4	06 04.4	+0.15	+68 02 49.54	− 9.508	+0.00022	+0.058
B.....4121	5.9	06 28.9	−2.05	+77 02 02.97	− 9.521	−0.00258	+0.007
G.....4075	6.7	06 40.7	+1.65	+50 24 56.27	− 9.515	+0.00216	.....
B.....4123	6.5	07 16.9	+1.17	+58 10 19.14	− 9.449	+0.00154	+0.018
B.....4122	6.3	07 24.2	+2.71	+16 53 52.21	− 9.471	+0.00352	−0.014
A.....5137	6.5	07 27.2	+1.32	+56 03 45	− 9.45	+0.002	.....
B.....4124	6.8	07 29.1	+1.94	+44 03 30.46	− 9.762	+0.00255	−0.312
B.....4125	6.3	07 48.2	+2.55	+23 43 36.94	− 9.445	+0.00332	−0.018
A.....5140	6.1	08 12.5	+3.15	− 3 59 24	− 9.40	+0.004	.....
G.....4083	6.7	08 20.5	+0.69	+63 38 29.62	− 9.387	+0.00093	.....
G.....4082	6.9	08 23.8	+1.02	+60 06 17.88	− 9.383	+0.00135	.....
B.....4129	6.0	08 30.6	+2.19	+36 39 24.74	− 9.411	+0.00286	−0.040
B.....4130	5.8	08 48.2	+2.97	+ 5 15 01.89	− 9.360	+0.00386	−0.011
G.....4084	6.5	08 48.8	+1.99	+42 36 16.52	− 9.351	+0.00260	.....
G.....4086	6.8	08 56.9	+2.11	+39 17 11.24	− 9.340	+0.00276	.....
B.J.....603	2.8	09 37.7	+3.14	− 3 27 47.71	− 9.435	+0.00410	−0.150
A.....5154	6.4	09 48.0	+2.95	+ 6 07 48	− 9.27	+0.004	.....
G.....4090	6.8	10 00.7	+2.14	+38 17 59.30	− 9.258	+0.00280	.....
B.....4136	7.0	10 20.7	+2.90	+ 8 05 04.80	− 9.247	+0.00379	−0.018
A.E.σCor.Bor.	5.8	11 18.5	+2.25	+34 05 10.90	− 9.226	+0.00292	−0.093
Gr.....1003	5.9	11 29.3	+2.66	+19 02 04.64	− 9.226	+0.00348	−0.084
Green...7357	6.3	12 04.8	+0.21	+67 22 19.88	− 9.132	+0.00031	−0.035
A.....5162	6.3	12 07.2	+2.45	+27 38 49	− 9.10	+0.003	.....
A.....5161	6.1	12 11.1	+3.15	− 3 43 52	− 9.09	+0.004	.....
B.....4142	6.9	12 26.4	+2.56	+23 20 44.85	− 9.090	+0.00336	−0.024
Gr.....1005	5.7	13 08.5	+2.40	+29 22 20.25	− 9.041	+0.00316	−0.026
B.J.....606	5.8	13 22.6	−1.76	+76 06 16.25	− 8.981	−0.00224	+0.012
B.J.....605	3.2	13 33.5	+3.17	− 4 28 25.67	− 8.948	+0.00418	+0.031
G.....4107	6.8	13 35.4	+1.46	+53 27 38.18	− 8.979	+0.00194	.....
B.....4154	7.0	14 39.8	+2.49	+26 06 54.63	− 8.901	+0.00328	−0.009
Green...3008	6.5	14 47.1	−1.55	+75 26 01.91	− 8.872	−0.00200	+0.014
B.....4159	5.8	15 45.1	+1.00	+59 58 22.81	− 8.788	+0.00134	+0.020
B.....4160	6.2	16 01.5	−1.02	+73 36 53.49	− 8.768	−0.00130	+0.018
G.....4113	6.3	16 16 10.0	+2.60	+21 20 58.12	− 8.777	+0.00345	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....4118	6.1	16 16 40.3	+1.68	+49 15 10.43	− 8.737	+0.00224	.....
B.....4161	5.7	16 50.2	+2.06	+39 55 23.88	− 8.739	+0.00272	−0.017
B.J.....608	3.6	17 02.1	+1.80	+46 31 38.20	− 8.674	+0.00240	+0.032
B.....4163	4.9	17 30.8	+3.03	+ 1 14 23.38	− 8.626	+0.00401	+0.043
B.J.....609	3.5	17 56.9	+2.64	+19 21 50.10	− 8.594	+0.00351	+0.040
A.....5188	6.1	17 58.7	+3.11	− 1 52 06	− 8.63	+0.004	.....
G.....4124	6.8	18 07.8	+1.51	+52 15 08.59	− 8.621	+0.00203	.....
Green...6659	6.5	18 11.5	−0.04	+68 46 07.34	− 8.573	−0.00002	+0.044
B.....4169	4.9	18 35.4	+2.34	+31 06 00.44	− 8.491	+0.00310	+0.092
B.....4173	5.4	18 58.1	+2.26	+34 00 37.21	− 8.603	+0.00301	−0.049
B.....4175	5.5	19 05.8	+2.26	+33 54 44.76	− 8.489	+0.00301	+0.055
B.....4176	6.5	19 29.1	+2.30	+32 32 32.71	− 8.530	+0.00307	−0.018
B.....4177	6.0	19 47.7	+2.92	+ 7 09 19.95	− 8.480	+0.00389	+0.008
B.J.....612	5.1	20 07.3	−1.79	+75 57 47.16	− 8.206	−0.00235	+0.256
B.J.....613	4.7	21 15.7	+2.77	+14 14 23.28	− 8.440	+0.00370	−0.068
A.....5209	6.2	21 57.5	+2.82	+11 36 39	− 8.32	+0.004	.....
Green...5973	5.4	22 00.7	−0.16	+69 19 03.42	− 8.333	−0.00017	−0.018
B.....4184	5.7	22 11.8	+2.14	+37 35 54.12	− 8.323	+0.00287	−0.026
G.....4143	6.8	22 12.2	+1.49	+52 29 38.41	− 8.300	+0.00201	.....
A.....5211	6.5	22 18.0	+3.02	+ 2 33 04	− 8.29	+0.004	.....
B.J.....614	5.8	22 27.2	+1.31	+55 24 34.03	− 8.259	+0.00177	+0.018
B.....4191	5.8	22 35.4	+0.79	+61 54 03.96	− 8.234	+0.00107	+0.032
Green...2648	6.9	22 39.3	−1.94	+76 21 08.12	− 8.263	−0.00255	.....
B.J.....615	2.7	22 46.2	+0.81	+61 43 03.93	− 8.191	+0.00110	+0.061
A.....5220	6.5	23 01.3	+3.01	+ 3 04 19	− 8.24	+0.004	.....
G.....4148	6.8	23 20.0	+2.01	+41 00 46.82	− 8.209	+0.00271	.....
Gr.....1021	6.5	23 58.6	+1.70	+48 09 20.69	− 8.042	+0.00230	+0.115
B.....4195	5.7	23 58.8	+3.05	+ 0 51 56.93	− 8.231	+0.00410	−0.076
A.....5229	6.7	24 24.4	+3.07	+ 0 15 24	− 8.15	+0.004	.....
Green...7362	7.0	25 05.3	+0.15	+67 16 24.77	− 8.069	+0.00024	.....
B.....4201	(5.4)	25 41.1	+1.97	+42 04 44.65	− 8.036	+0.00267	−0.018
B.J.....618	2.6	26 21.0	+2.58	+21 41 06.48	− 7.986	+0.00347	−0.020
B.J.....617	3.7	26 22.4	+3.02	+ 2 10 48.62	− 8.053	+0.00407	−0.090
G.....4163	6.4	26 25.6	+1.52	+51 36 15.51	− 7.962	+0.00207	.....
B.....4207	5.5	26 39.1	+2.60	+20 40 31.48	− 8.007	+0.00351	−0.067
A.....5244	5.9	27 22.4	+2.57	+22 23 18	− 7.89	+0.003	.....
B.....4209	6.5	27 37.7	+1.64	+49 09 23.30	− 7.927	+0.00223	−0.064
A.....5246	6.5	27 44.8	+2.20	+35 25 11	− 7.86	+0.003	.....
Green...7363	6.7	28 07.6	+0.14	+67 14 22.07	− 7.825	+0.00022	.....
B.J.....619	5.0	28 09.2	−0.13	+68 57 46.40	− 7.785	−0.00015	+0.035
B.....4210	5.7	28 09.9	+2.95	+ 5 42 42.98	− 7.836	+0.00399	−0.017
B.....4212	5.1	28 23.5	+2.81	+11 40 50.31	− 7.886	+0.00378	−0.085
B.....4214	5.7	29 04.6	+1.81	+45 47 16.86	− 7.717	+0.00246	+0.028
Green...1625	5.5	30 43.2	−3.42	+79 09 24.12	− 7.479	−0.00463	+0.135
B.....4221	6.0	31 09.2	+0.84	+61 00 41.92	− 7.594	+0.00117	−0.016
B.J.....621	4.1	31 12.1	+1.93	+42 37 19.95	− 7.536	+0.00264	+0.038
G.....4178	6.6	31 24.2	+2.69	+17 14 31.61	− 7.561	+0.00366	.....
B.....4222	6.1	31 37.7	+3.15	− 2 07 59.47	− 7.857	+0.00432	−0.318
G.....4182	6.6	31 47.2	+1.46	+52 25 25.03	− 7.529	+0.00201	.....
Green...4300	6.5	16 32 50.7	−0.94	+72 47 53.33	− 7.443	−0.00124	.....

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		h m s	s	° ′ ″	″	″	″
B.....4228	6.1	16 33 33.6	+1.75	+46 47 42.75	− 7.371	+0.00240	+0.012
Gr.....1032	6.2	33 39.2	+2.77	+13 52 07.94	− 7.376	+0.00378	.....
B.....4229	5.8	34 03.6	+1.42	+53 04 49.63	− 7.321	+0.00195	+0.020
B.....4232	5.4	34 06.1	+1.41	+53 06 17.64	− 7.318	+0.00195	+0.020
B.J.....623	6.5	34 29.9	−2.63	+77 37 34.09	− 7.031	−0.00358	+0.275
G.....4188	6.8	35 00.9	+2.04	+39 45 25.96	− 7.266	+0.00280	.....
G.....4194	6.1	36 00.3	+0.60	+63 15 14.35	− 7.186	+0.00084	.....
B.....4238	6.0	36 10.5	+2.98	+ 4 23 40.83	− 7.184	+0.00408	−0.015
B.....4240	5.5	36 11.1	+1.21	+56 11 29.03	− 7.086	+0.00167	+0.082
B.....4242	5.1	36 18.2	+1.63	+49 06 14.29	− 7.132	+0.00224	+0.027
A.....5289	6.2	36 33.1	+3.09	− 0 49 34	− 7.13	+0.004	.....
A.....5290	6.4	36 39.9	+2.79	+12 34 09	− 7.13	+0.004	.....
Green...1626	7.0	37 05.5	−3.94	+79 58 31.02	− 7.179	−0.00535	−0.080
B.....4244	6.0	37 08.9	+3.04	+ 1 21 08.64	− 7.040	+0.00416	+0.050
A.....5294	6.2	37 16.7	+2.49	+25 01 56	− 7.09	+0.003	.....
N.A. ζ Hercul.	3.0	37 53.6	+2.26	+31 45 55.28	− 6.637	+0.00306	+0.390
B.....4247	6.1	37 57.6	+2.43	+27 05 22.87	− 7.072	+0.00335	−0.049
Green...2278	6.9	39 26.8	−2.79	+77 55 54.50	− 6.940	−0.00379	−0.037
B.J.....626	3.3	39 48.6	+2.06	+39 05 34.76	− 6.956	+0.00285	−0.084
B.....4259	5.0	40 17.6	+0.41	+64 45 34.36	− 6.849	+0.00058	−0.017
B.....4258	6.2	40 32.4	+2.21	+34 12 14.79	− 6.761	+0.00305	+0.050
B.....4257	7.0	40 36.9	+2.92	+ 6 15 36.03	− 7.083	+0.00401	−0.277
B.....4260	6.2	40 55.2	+3.05	+ 1 11 04.55	− 6.780	+0.00420	0.000
B.....4263	6.4	41 07.9	+1.22	+55 51 18.70	− 6.686	+0.00171	+0.077
B.....4262	6.0	41 18.0	+2.72	+15 54 39.59	− 6.789	+0.00376	−0.040
B.....4264	5.5	41 30.6	+2.88	+ 8 44 46.02	− 6.716	+0.00398	+0.016
A.....5317	6.2	42 22.4	+1.88	+43 22 57	− 6.66	+0.003	.....
B.....4266	6.3	42 37.4	+3.02	+ 2 13 33.73	− 6.659	+0.00418	−0.019
Green...1630	6.4	42 59.1	−3.47	+79 05 16.59	− 6.612	−0.00475	.....
B.....4269	5.3	43 20.5	+2.95	+ 5 24 26.83	− 6.626	+0.00409	−0.045
B.J.....627	4.9	43 35.3	+1.14	+56 56 32.56	− 6.502	+0.00160	+0.058
Green...3411	6.6	43 56.1	−1.35	+74 03 05.66	− 6.529	−0.00184	+0.005
G.....4213	6.3	43 59.9	+2.76	+13 44 59.54	− 6.527	+0.00384	.....
G.....4216	6.4	44 26.9	+1.92	+42 23 56.23	− 6.491	+0.00267	.....
Gr.....1045	6.0	45 25.3	+2.77	+13 25 03.50	− 6.412	+0.00385	.....
A.....5334	6.4	45 40.5	+3.13	− 2 29 53	− 6.39	+0.004	.....
B.....4279	6.9	45 45.2	+2.33	+30 07 06.88	− 6.307	+0.00324	+0.075
B.....4280	5.7	45 57.1	+2.91	+ 7 24 09.00	− 6.372	+0.00405	−0.008
G.....4220	7.0	46 23.9	+1.07	+57 38 45.19	− 6.329	+0.00151	.....
G.....4222	6.8	46 30.6	+0.51	+63 41 11.63	− 6.321	+0.00073	.....
B.....4284	4.9	46 36.1	+1.75	+46 08 21.87	− 6.383	+0.00246	−0.073
B.....4285	5.7	46 51.1	+3.04	+ 1 22 06.58	− 6.316	+0.00423	−0.026
G.....4221	6.3	46 52.7	+1.86	+43 35 06.04	− 6.290	+0.00261	.....
Green...2282	6.1	47 05.7	−2.72	+77 40 10.86	− 6.061	−0.00371	+0.212
B.....4286	6.1	47 08.2	+2.34	+29 57 34.25	− 6.273	+0.00326	−0.007
A.....5344	6.4	47 19.7	+2.26	+32 42 16	− 6.25	+0.003	.....
G.....4226	6.6	47 43.2	+1.93	+42 02 49.13	− 6.219	+0.00270	.....
B.J.....629	6.5	47 59.0	+2.73	+15 07 28.58	− 6.202	+0.00381	−0.006
B.....4294	5.3	48 01.4	+2.49	+24 48 25.65	− 6.190	+0.00347	+0.002
A.....5353	6.2	16 49 30.8	+3.11	− 1 27 47	− 6.07	+0.004	.....

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		h m s	s	° ′ ″	″	″	″
B.....4300	5.6	16 49 33.2	+2.27	+31 51 00.26	− 6.088	+0.00317	−0.023
B.....4302	4.3	49 44.9	+2.84	+10 18 46.16	− 6.094	+0.00396	−0.046
B.....4305	7.0	50 41.6	+1.89	+42 58 45.10	− 6.300	+0.00267	−0.330
A.....5361	6.2	50 47.0	+1.68	+47 33 35	− 5.97	+0.002	.....
B.....4307	5.8	51 02.4	+2.58	+21 06 09.95	− 5.947	+0.00363	−0.006
B.....4310	6.4	51 21.1	+2.45	+25 52 30.05	− 5.945	+0.00344	−0.029
B.....4311	5.6	51 24.8	+2.64	+18 34 35.22	− 5.902	+0.00368	+0.008
B.J.....633	3.2	53 24.5	+2.84	+ 9 30 51.50	− 5.756	+0.00396	−0.012
A.....5375	6.5	53 24.8	+2.75	+14 01 14	− 5.74	+0.004	.....
Green...1633	6.9	53 26.5	−3.94	+79 39 08.90	− 5.742	−0.00548	.....
Gr.....1050	6.7	53 49.3	+2.46	+25 29 28.13	− 5.705	+0.00346	+0.004
A.....5380	6.5	53 58.2	+2.49	+24 31 13	− 5.70	+0.004	.....
G.....4249	6.9	54 59.9	+1.89	+42 39 02.96	− 5.612	+0.00267	.....
B.J.εUrs.Min.	4.2	55 09.4	−6.27	+82 11 12.33	− 5.591	−0.00874	+0.006
Green...5357	7.0	55 18.7	−0.58	+70 36 18.41	− 5.670	−0.00078	−0.085
Green...8946	4.8	55 31.8	+0.32	+65 16 19.49	− 5.522	+0.00053	+0.044
Green...3023	6.8	55 42.6	−1.89	+75 32 04.58	− 5.583	−0.00263	−0.032
Green...7382	6.7	55 49.6	−0.05	+67 37 00.22	− 5.551	−0.00005	−0.010
Green...8947	6.4	55 58.4	+0.29	+65 10 33.77	− 5.501	+0.00043	+0.028
N.A.30Ophiu.	5.1	56 18.9	+3.16	− 4 05 17.66	− 5.572	+0.00444	−0.076
B.J.....634	3.6	56 50.7	+2.29	+31 03 30.25	− 5.430	+0.00323	+0.024
G.....4259	7.0	57 03.8	+2.02	+39 13 47.96	− 5.329	+0.00286	+0.109
B.....4329	6.0	57 10.1	+2.53	+22 45 51.17	− 5.453	+0.00357	−0.026
A.....5396	6.4	57 27.6	+2.73	+15 04 50	− 5.40	+0.004	.....
A.....5398	6.5	57 39.6	+2.88	+ 8 34 50	− 5.39	+0 004	.....
B.....4330	6.3	57 42.4	+1.10	+56 49 12.98	− 5.355	+0.00156	+0.026
Green...3858	6.2	58 03.6	−1.21	+73 15 50.52	− 5.372	−0.00168	−0.019
A.E.d Hercul.	5.3	58 16.9	+2.21	+33 41 52.80	− 5.342	+0.00313	−0.012
A.....5402	5.9	58 37.2	+2.45	+25 37 53	− 5.31	+0.003	.....
B.....4336	5.3	59 00.4	+2.75	+14 13 15.14	− 5.339	+0.00388	−0.067
B.....4340	6.1	59 31.1	+2.76	+13 43 56.66	− 5.273	+0.00389	−0.044
Green...5998	6.5	59 32.4	−0.35	+69 19 06.16	− 5.274	−0.00046	−0.045
B.....4341	6.4	59 49.5	+2.76	+13 41 46.93	− 5.337	+0.00390	−0.134
A.....5409	6.4	16 59 58.1	+2.61	+19 48 56	− 5.19	+0.004	.....
A.....5413	6.3	17 00 08.3	+0.76	+60 46 31	− 5.18	+0.001	.....
B.....4343	6.8	00 16.4	+2.15	+35 32 26.67	− 5.208	+0.00306	−0.043
Green...1950	7.0	00 21.5	−3.05	+78 05 35.74	− 5.160	−0.00428	.....
Green...2284	6.7	00 26.3	−2.90	+77 47 08.58	− 5.117	−0.00407	+0.035
A.....5416	6.4	00 38.7	+2.17	+34 54 55	− 5.14	+0.003	.....
A.....5414	6.0	00 41.9	+3.05	+ 0 50 10	− 5.49	+0.004	−0.36
A.....5417	6.5	00 46.3	+2.61	+19 43 22	− 5.17	+0.004	−0.05
Gr.....1059	5.6	00 53.9	+3.09	− 0 46 09.77	− 5.114	+0.00437	.....
B.J.....635	4.9	01 12.2	+2.78	+12 51 49.60	− 5.101	+0.00394	−0.015
Green...9753	6.1	01 45.4	+0.33	+64 43 30.39	− 5.041	+0.00049	.....
A.....5421	6.4	01 53.2	+2.85	+ 9 51 18	− 5.03	+0.004	.....
A.....5422	6.5	01 57.8	+2.83	+10 34 28	− 5.02	+0.004	.....
B.....4348	6.5	02 12.8	+3.11	− 1 32 08.44	− 5.048	+0.00441	−0.047
B.....4349	6.7	02 20.4	+1.82	+43 56 02.00	− 5.004	+0.00259	−0.014
Gr.....1060	6.3	02 26.4	+1.59	+48 55 39.65	− 5.068	+0.00227	−0.086
B.....4350	6.0	17 02 29.5	+2.54	+22 12 18.92	− 5.029	+0.00359	−0.052

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		h m s	s	° ′ ″	″	″	″
Green...3025	6.9	17 03 13.4	−1.87	+75 21 07.75	− 4.978	−0.00263	−0.060
B.....4354	5.1	03 28.2	+1.24	+54 35 18.82	− 4.813	+0.00176	+0.081
B.....4353	6.2	03 35.0	+3.09	− 0 57 40.75	− 4.915	+0.00439	−0.030
Green...1083	6.7	03 55.1	−5.09	+80 59 20.01	− 4.829	−0.00718	+0.029
A.....5433	6.4	04 10.6	+3.16	− 3 45 43	− 4.84	+0.004	.....
Green...3026	6.1	04 29.3	−1.92	+75 25 20.04	− 4.875	−0.00269	−0.066
B.J.....636	6.4	04 50.6	+1.96	+40 37 59.68	− 4.806	+0.00278	−0.028
B.....4358	5.6	04 50.6	+2.13	+36 03 05.30	− 4.801	+0.00303	−0.023
Gr.....1063	7.0	05 25.7	+2.83	+10 09 20.41	− 4.868	+0.00403	−0.138
G.....4294	6.8	06 04.1	+1.15	+55 52 54.86	− 4.675	+0.00166	.....
B.....4364	5.3	06 38.2	+1.94	+40 53 20.82	− 4.628	+0.00277	−0.003
G.....4298	6.2	07 04.4	+0.70	+61 16 15.69	− 4.590	+0.00101	.....
B.....4365	6.5	07 19.5	+2.48	+24 20 48.75	− 4.553	+0.00354	+0.014
A.....5447	6.4	07 24.8	+2.89	+ 8 00 13	− 4.56	+0.004	.....
G.....4297	7.0	07 33.3	+2.48	+24 21 40.13	− 4.548	+0.00355	.....
B.....4366	5.6	08 13.2	+2.83	+10 41 36.53	− 4.527	+0.00403	−0.036
G.....4299	6.6	08 18.3	+3.06	+ 0 27 41.06	− 4.485	+0.00437	.....
A.....5449	6.5	08 27.0	+1.37	+52 31 07	− 4.47	+0.002	.....
B.J.....639	3.0	08 31.4	+0.17	+65 49 31.52	− 4.443	+0.00025	+0.022
G.....4301	6.3	08 58.5	+1.91	+41 50 15.12	− 4.428	+0.00273	.....
A.....5454	6.4	09 22.5	+1.53	+49 51 11	− 4.40	+0.002	.....
B.J.....640	(3.0)	10 32.6	+2.73	+14 29 32.20	− 4.263	+0.00391	+0.029
B.....4374	6.5	10 32.9	+2.73	+14 29 29.80	− 4.261	+0.00391	+0.031
B.J.....641	3.0	11 20.1	+2.46	+24 56 41.20	− 4.383	+0.00352	−0.159
G.....4312	6.1	11 42.2	+3.02	+ 2 17 12.93	− 4.194	+0.00433	.....
B.....4382	5.6	11 45.9	+0.51	+62 58 36.76	− 4.142	+0.00075	+0.046
B.J.....643	3.1	11 54.7	+2.09	+36 54 36.33	− 4.174	+0.00299	+0.001
A.....5468	6.0	11 57.2	+2.50	+23 50 32	− 4.17	+0.004	.....
Gr.....1073	4.8	11 59.4	+3.08	− 0 20 39.66	− 4.233	+0.00440	−0.064
G.....4323	6.7	13 04.2	+3.03	+ 1 50 22.81	− 4.077	+0.00434	.....
A.....5479	6.4	13 49.7	+2.51	+23 11 13	− 4.01	+0.004	.....
B.....4388	(5.0)	14 00.0	+2.21	+33 11 47.15	− 4.009	+0.00318	−0.013
A.....5482	6.2	14 05.1	+2.66	+17 24 50	− 3.95	+0.004	+0.04
A.....5480	6.5	14 09.0	+3.13	− 2 42 50	− 4.05	+0.004	−0.06
Gr.....1078	5.3	14 23.1	+2.82	+10 57 40.38	− 4.044	+0.00404	−0.080
B.....4391	4.8	14 34.0	+2.07	+37 23 06.67	− 3.895	+0.00297	+0.053
G.....4333	6.8	14 59.0	+0.73	+60 48 33.91	− 3.914	+0.00105	.....
G.....4328	6.8	15 14.2	+3.02	+ 2 13 51.72	− 3.891	+0.00434	.....
B.....4393	6.0	15 16.7	+2.35	+28 54 59.02	− 3.902	+0.00338	−0.015
G.....4332	5.9	15 22.0	+2.01	+38 54 10.71	− 3.808	+0.00290	+0.072
B.....4396	6.7	15 23.8	+0.72	+60 45 57.26	− 3.866	+0.00104	+0.011
B.....4400	5.3	16 20.9	+2.64	+18 08 56.99	− 3.846	+0.00380	−0.051
B.....4401	5.6	16 29.7	+2.44	+25 37 42.34	− 3.802	+0.00351	−0.019
B.....4402	5.5	17 11.8	+2.47	+24 35 18.51	− 3.723	+0.00355	−0.001
A.E.w.Hercul.	5.4	17 17.5	+2.24	+32 34 58.53	− 4.761	+0.00324	−1.034
A.....5510	6.5	17 32.6	+2.68	+16 49 12	− 3.69	+0.004	.....
Green...4808	6.8	17 36.7	−0.95	+71 53 09.85	− 3.686	−0.00135	0.000
B.....4408	5.8	17 48.5	+1.69	+46 19 43.07	− 3.632	+0.00244	+0.038
A.....5512	6.5	17 59.7	+2.35	+28 50 43	− 3.66	+0.003	.....
A.....5514	6.5	17 18 07.2	+1.60	+48 16 39	− 3.65	+0.002	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....5513	6.3	17 18 09.5	+3.13	− 2 17 55	− 3.65	+0.005	.....
B.....4411	5.7	18 46.4	+1.97	+40 03 44.61	− 3.664	+0.00284	−0.077
A.....5521	5.9	19 39.6	+2.87	+ 8 56 09	− 3.51	+0.004	.....
A.....5523	5.8	19 48.4	+1.29	+53 30 20	− 3.50	+0.002	.....
Green...5365	7.0	20 01.7	−0.73	+70 52 31.17	− 3.474	−0.00103	+0.005
B.....4416	5.9	20 20.6	+2.51	+23 02 36.18	− 3.494	+0.00361	−0.042
B.....4418	5.9	20 29.6	+2.69	+16 22 59.54	− 3.472	+0.00388	−0.034
A.....5527	6.5	20 30.3	+2.70	+15 42 13	− 3.44	+0.004	.....
B.....4419	4.6	20 34.7	+2.07	+37 13 41.15	− 3.435	+0.00298	−0.004
Green...8136	7.0	20 54.4	+0.02	+66 38 45.91	− 3.404	+0.00004	.....
G.....4351	6.4	21 00.5	+2.02	+38 39 47.25	− 3.396	+0.00292	.....
A.....5532	6.3	21 17.4	+3.11	− 1 34 26	− 3.38	+0.004	.....
B.....4422	6.7	21 20.0	+2.08	+37 01 53.09	− 3.331	+0.00299	+0.035
B.....4423	4.6	21 51.3	+3.18	− 5 00 27.88	− 3.370	+0.00458	−0.049
A.....5537	6.3	21 54.0	+2.67	+16 59 45	− 3.32	+0.004	.....
A.....5538	6.3	21 58.4	+2.90	+ 7 40 26	− 3.31	+0.004	.....
N.A.σOphiuc.	4.4	22 02.9	+2.98	+ 4 13 04.86	− 3.294	+0.00429	+0.008
B.....4427	5.6	22 56.1	+2.59	+20 09 25.18	− 3.216	+0.00374	+0.012
A.....5546	6.2	23 32.3	+2.16	+34 46 13	− 3.18	+0.003	.....
B.....4428	5.5	24 14.2	+3.06	+ 0 24 10.79	− 3.095	+0.00441	+0.021
B.J.....650	6.0	24 21.1	+1.59	+48 20 06.31	− 3.124	+0.00230	−0.019
B.....4432	5.7	24 31.5	+0.77	+60 07 25.69	− 3.056	+0.00113	+0.035
G.....4360	6.6	24 43.9	+0.90	+58 43 36.34	− 3.073	+0.00131	.....
Green...7398	6.3	25 16.3	−0.19	+67 22 55.99	− 3.013	−0.00027	+0.012
B.....4433	5.4	25 45.8	+3.09	− 0 59 19.98	− 3.158	+0.00445	−0.175
Green...1343	5.9	26 25.6	−4.58	+80 13 00.59	− 2.922	−0.00660	+0.006
B.....4437	5.8	26 50.5	+3.01	+ 2 47 28.82	− 2.872	+0.00434	+0.019
A.E. λ Hercul.	4.5	27 06.1	+2.42	+26 10 40.62	− 2.849	+0.00351	+0.014
B.....4440	6.0	27 30.9	+2.27	+31 13 28.71	− 2.828	+0.00329	+0.004
Gr.....1096	6.5	27 39.8	+2.00	+38 56 56.00	− 2.824	+0.00290	−0.004
B.....4441	5.9	28 17.5	+2.36	+28 28 19.44	− 2.741	+0.00341	+0.024
B.J.....653	2.7	28 23.9	+1.35	+52 22 03.59	− 2.746	+0.00196	+0.010
A.....5572	6.5	29 16.9	+0.96	+57 56 34	− 2.68	+0.001	.....
B.....4446	5.8	29 28.1	+2.61	+19 19 16.39	− 2.753	+0.00377	−0.091
A.....5573	6.5	29 37.6	+2.72	+14 54 22	− 2.75	+0.004	−0.10
B.....4447	5.8	29 37.8	+2.68	+16 22 50.65	− 2.704	+0.00388	−0.055
B.....4451	6.9	30 13.3	+2.76	+13 13 19.19	− 2.633	+0.00400	−0.036
B.....4455	6.0	30 15.9	+1.90	+41 18 23.34	− 2.666	+0.00275	−0.072
B.....4453	6.0	30 20.2	+2.85	+ 9 38 48.40	− 2.602	+0.00412	−0.015
B.J.....655	4.7	30 24.2	+1.18	+55 14 43.54	− 2.531	+0.00174	+0.050
B.J.....657	4.8	30 29.6	+1.18	+55 14 02.19	− 2.522	+0.00175	+0.052
B.J.....656	2.1	30 45.4	+2.78	+12 37 29.57	− 2.784	+0.00405	−0.233
A.....5590	6.5	32 02.8	+0.98	+57 37 04	− 2.44	+0.001	.....
B.....4461	6.1	32 08.8	+2.56	+21 03 10.77	− 2.455	+0.00372	−0.025
B.J.....659	5.2	32 19.3	−0.25	+68 11 32.68	− 2.281	−0.00035	+0.134
A.....5591	6.3	32 36.8	+2.06	+37 21 28	− 2.39	+0.003	.....
A.....5593	6.5	32 47.3	+2.38	+27 37 28	− 2.38	+0.003	.....
G.....4379	5.7	33 11.2	+2.28	+30 50 23.58	− 2.340	+0.00331	.....
B.....4468	6.0	33 48.6	+2.47	+24 21 46.04	− 2.289	+0.00358	−0.003
B.....4470	5.4	17 34 03.5	+0.62	+61 56 36.13	− 2.771	+0.00095	−0.508

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....4471	5.7	17 34 16.4	+1.57	+48 38 14.74	− 2.192	+0.00228	+0.053
G.....4387	7.0	34 23.9	+0.52	+62 30 59.67	− 2.236	+0.00076	.....
B.....4472	6.4	34 35.9	+3.03	+ 2 04 45.19	− 2.235	+0.00440	−0.018
A.....5603	6.3	34 49.8	+2.76	+13 22 42	− 2.20	+0.004	.....
A.....5604	6.5	35 30.9	+3.12	− 2 06 13	− 2.14	+0.005	.....
A.....5609	6.2	36 33.6	+2.27	+31 14 58	− 2.05	+0.003	.....
B.J.....663	3.6	36 55.4	+1.69	+46 03 13.41	− 2.019	+0.00246	−0.004
G.....4395	6.3	37 06.9	+2.71	+15 13 26.16	− 1.998	+0.00394	.....
A.....5614	6.1	37 09.0	+2.92	+ 6 21 29	− 2.00	+0.004	.....
A.....5615	6.5	37 18.0	+2.26	+31 20 10	− 1.99	+0.003	.....
B.....4480	6.6	37 23.7	+2.46	+24 33 25.55	− 1.925	+0.00358	+0.049
Green...6029	6.5	37 25.9	−0.52	+69 37 32.86	− 2.211	−0.00074	−0.240
B.J.....664	4.9	37 28.6	−0.35	+68 47 58.69	− 1.644	−0.00050	+0.323
G.....4401	6.6	37 54.0	+1.81	+43 30 50.65	− 1.930	+0.00263	.....
B.....4482	5.7	37 56.2	+2.69	+15 59 35.55	− 1.831	+0.00391	+0.096
B.....4486	5.9	38 46.9	+2.46	+24 36 31.54	− 1.968	+0.00357	−0.115
B.J.....665	2.8	39 01.6	+2.96	+ 4 36 15.08	− 1.679	+0.00430	+0.153
A.....5628	6.4	39 15.9	+2.73	+14 20 06	− 1.81	+0.004	.....
A.....5630	6.2	39 18.1	+1.38	+51 51 41	− 1.81	+0.002	.....
B.....4488	6.1	39 39.9	+2.46	+24 21 58.52	− 1.712	+0.00357	+0.064
B.....4489	6.5	40 02.8	+3.01	+ 2 37 03.46	− 1.729	+0.00438	+0.014
B.....4490	6.9	40 04.2	+3.01	+ 2 37 02.28	− 1.727	+0.00438	+0.014
A.....5633	6.4	40 11.5	+2.73	+14 26 54	− 1.73	+0.004	.....
A.....5634	6.4	40 25.6	+1.78	+44 07 22	− 1.71	+0.003	.....
Green...7409	6.9	41 31.7	−0.10	+67 11 30.63	− 1.613	−0.00013	.....
B.....4494	5.8	42 06.4	+1.25	+53 50 20.34	− 1.599	+0.00183	−0.035
G.....4411	6.2	42 53.8	+2.00	+38 54 58.99	− 1.495	+0.00291	.....
B.J.....667	3.3	42 56.1	+2.35	+27 46 21.97	− 2.241	+0.00338	−0.750
G.....4412	6.5	43 00.1	+1.98	+39 21 20.23	− 1.485	+0.00288	.....
B.....4499	5.8	43 09.6	+2.65	+17 43 46.03	− 1.498	+0.00385	−0.027
B.J.....668	3.7	43 22.8	+3.01	+ 2 44 25.64	− 1.530	+0.00437	−0.077
B.J.....670	4.7	43 32.2	−1.07	+72 11 35.67	− 1.706	−0.00156	−0.267
Gr.....1112	6.1	43 34.0	−1.08	+72 12 05.20	− 1.716	−0.00155	−0.278
A.....5652	6.5	43 51.4	+2.98	+ 3 50 04	− 1.42	+0.004	.....
B.....4506	6.0	44 33.1	+2.57	+20 35 41.10	− 1.358	+0.00375	−0.008
B.....4507	6.5	44 43.1	+1.61	+47 38 33.86	− 1.339	+0.00234	−0.003
G.....4417	6.0	44 53.3	+2.61	+19 17 00.05	− 1.322	+0.00380	.....
B.....4508	5.3	45 10.1	+2.43	+25 39 07.72	− 1.342	+0.00354	−0.045
A.....5664	6.3	46 32.6	+2.79	+11 58 20	− 1.18	+0.004	.....
B.....4510	5.8	46 53.5	+2.32	+29 20 44.45	− 1.106	+0.00339	+0.040
B.....4511	5.2	46 55.3	+1.43	+50 48 06.80	− 0.941	+0.00208	+0.202
A.....5669	6.4	47 00.9	+2.51	+22 20 27	− 1.15	+0.004	−0.02
A.....5673	6.4	47 20.2	+3.10	− 1 12 50	− 1.10	+0.005	.....
B.....4514	6.9	47 42.0	+1.57	+48 25 04.84	− 1.067	+0.00229	+0.008
A.....5678	6.1	48 01.7	+3.04	+ 1 19 35	− 1.05	+0.004	.....
G.....4429	7.0	48 18.7	+1.95	+40 05 39.59	− 1.022	+0.00284	.....
B.....4516	6.0	48 51.2	+2.92	+ 6 07 08.93	− 0.901	+0.00425	+0.073
B.....4518	6.2	49 09.0	+1.95	+40 00 04.53	− 0.900	+0.00284	+0.049
A.....5685	6.5	49 23.7	+3.11	− 1 35 43	− 0.93	+0.005	.....
G.....4434	6.5	17 49 31.4	+1.66	+46 39 59.81	− 1.039	+0.00242	−0.122

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	o ′ ″	″	″	″
Green...6718	6.9	17 49 59.8	−0.35	+68 42 33.50	− 0.875	−0.00051	.....
B.....4522	5.2	50 22.3	+1.95	+40 01 28.06	− 0.794	+0.00285	+0.047
B.....4527	5.8	51 43.2	+3.06	+ 0 41 00.09	− 0.720	+0.00446	+0.004
N.A. 89 Herc.	5.5	51 47.4	+2.42	+26 03 49.65	− 0.710	+0.00353	+0.006
B.J.....671	3.6	51 58.3	+1.04	+56 53 11.43	− 0.626	+0.00153	+0.076
B.....4529	5.6	52 02.6	+3.17	− 4 04 11.02	− 0.721	+0.00461	−0.025
B.....4530	6.0	52 03.9	+2.52	+22 28 38.49	− 0.696	+0.00367	−0.002
A.....5701	6.2	52 27.7	+3.07	+ 0 04 42	− 0.66	+0.004	.....
B.J.....672	3.8	53 10.0	+2.06	+37 15 42.99	− 0.593	+0.00300	+0.005
B.J.....675	5.1	53 28.6	−2.69	+76 58 31.04	− 0.329	−0.00390	+0.241
A.....5706	6.5	53 31.4	+2.48	+24 00 13	− 0.56	+0.004	.....
A.....5708	6.3	53 44.5	+1.09	+55 58 42	− 0.54	+0.002	.....
Green...3437	6.8	54 03.8	−1.77	+74 35 06.04	− 0.519	−0.00258	.....
Gr.....1121	6.8	54 06.6	+1.74	+44 59 50.49	− 0.522	+0.00253	−0.006
Gr.....1124	6.2	54 13.5	+1.72	+45 21 40.85	− 0.539	+0.00251	−0.033
B.J.....674	3.7	54 16.0	+2.33	+29 15 25.05	− 0.527	+0.00341	−0.026
B.J.....676	2.3	54 31.0	+1.39	+51 29 56.78	− 0.502	+0.00203	−0.022
A.....5715	6.1	54 49.9	+3.18	− 4 48 44	− 0.45	+0.005	.....
B.....4542	4.6	55 03.5	+2.30	+30 11 46.33	− 0.428	+0.00335	+0.004
Green...1964	6.4	55 14.5	−3.39	+78 19 19.76	− 0.417	−0.00495	.....
G.....4458	6.0	55 33.9	+2.09	+36 17 43.28	− 0.388	+0.00305	.....
A.....5718	6.5	55 40.2	+3.06	+ 0 38 01	− 0.38	+0.004	.....
B.....4544	4.6	55 43.7	+3.17	− 3 41 06.43	− 0.426	+0.00463	−0.052
B.....4545	5.0	55 48.3	+2.97	+ 4 22 23.05	− 0.384	+0.00433	−0.017
Green...6039	7.0	55 58.8	−0.53	+69 37 33.24	− 0.352	−0.00077	.....
B.....4547	4.8	56 03.0	+2.67	+16 45 19.35	− 0.355	+0.00389	−0.010
B.J.....677	4.0	56 08.2	+3.00	+ 2 56 06.86	− 0.351	+0.00438	−0.013
G.....4462	6.1	56 18.0	+1.71	+45 28 49.94	− 0.323	+0.00250	.....
Green...4331	5.5	56 44.6	−1.04	+72 00 49.85	− 0.288	−0.00152	−0.003
A.....5729	6.4	56 53.6	+2.71	+15 05 57	− 0.34	+0.004	−0.07
B.....4552	4.5	57 11.2	+3.04	+ 1 18 23.18	− 0.271	+0.00444	−0.025
A.....5733	6.2	57 18.5	+2.20	+33 13 00	− 0.24	+0.003	.....
B.....4555	6.0	57 21.9	+1.71	+45 30 17.95	− 0.274	+0.00250	−0.044
Green...3043	6.5	57 24.7	−1.98	+75 10 44.75	− 0.226	−0.00288	.....
B.....4556	5.3	57 40.9	+2.54	+21 35 42.89	− 0.176	+0.00371	+0.027
B.....4557	5.3	57 41.3	+2.54	+21 35 44.00	− 0.175	+0.00371	+0.027
A.....5739	6.4	58 18.0	+2.19	+33 18 38	− 0.15	+0.003	.....
B.....4562	5.4	58 32.2	+2.56	+20 49 57.56	− 0.146	+0.00374	−0.018
B.....4563	6.5	58 44.4	+2.51	+22 55 19.56	− 0.111	+0.00365	−0.001
Green...9779	6.8	58 45.1	+0.31	+64 08 39.76	− 0.109	+0.00046	.....
G.....4480	6.9	59 47.0	+1.81	+43 15 55.53	− 0.019	+0.00265	.....
G.....4481	6.5	17 59 51.8	+1.77	+44 13 59.40	− 0.012	+0.00258	.....
A.....5747	6.4	18 00 04.8	+3.03	+ 1 54 50	0.00	+0.004	.....
B.....4572	6.6	00 47.8	+1.57	+48 27 34.34	+ 0.076	+0.00229	+0.006
A.E.70 Ophiu.	4.1	00 54.3	+3.03	+ 2 31 11.07	− 1.043	+0.00444	−1.102
B.J.δUrs.Min.	4.3	01 17.8	−19.50	+86 36 50.91	+ 0.170	−0.02840	+0.057
B.....4574	6.0	01 27.7	+3.19	− 4 45 32.20	+ 0.092	+0.00467	−0.036
A.....5756	6.4	01 29.9	+3.08	− 0 27 14	+ 0.14	+0.004	.....
A.....5760	6.3	01 41.1	+2.54	+21 38 18	+ 0.15	+0.004	.....
G.....4490	6.5	18 01 47.5	+1.95	+40 04 34.28	+ 0.158	+0.00284	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
Gr.....1140	6.4	18 02 12.3	+1.87	+41 56 09.42	+ 0.304	+0.00272	+0.111
B.....4578	5.6	02 14.4	+2.53	+22 12 35.66	+ 0.182	+0.00368	−0.014
A.....5764	6.0	02 28.7	+2.23	+32 13 20	+ 0.22	+0.003	.....
B.....4580	4.8	03 00.1	+2.87	+ 8 43 18.22	+ 0.288	+0.00418	+0.025
B.J.....680	3.6	03 05.0	+2.84	+ 9 33 01.45	+ 0.348	+0.00414	+0.079
B.....4582	5.2	03 36.5	+2.28	+30 32 54.26	+ 0.378	+0.00331	+0.063
B.J.....681	3.8	04 01.9	+2.34	+28 44 58.24	+ 0.352	+0.00341	0.000
B.....4605	6.0	04 04.4	−22.32	+86 59 43.91	+ 0.363	−0.03244	+0.007
B.....4586	6.2	04 11.8	+2.42	+26 04 59.90	+ 0.395	+0.00352	+0.028
B.....4587	6.2	04 11.8	+2.42	+26 05 13.89	+ 0.387	+0.00352	+0.020
A.....5779	6.4	04 44.4	+1.43	+50 48 25	+ 0.41	+0.002	.....
B.....4589	5.2	04 46.1	+1.81	+43 26 59.37	+ 0.353	+0.00264	−0.064
G.....4508	6.6	04 51.5	+1.50	+49 41 47.39	+ 0.426	+0.00218	.....
B.....4590	4.4	04 54.5	+2.56	+20 47 58.41	+ 0.412	+0.00374	−0.017
B.....4593	5.7	04 55.0	+2.08	+36 23 29.80	+ 0.236	+0.00302	−0.194
B.....4592	5.2	05 00.0	+2.59	+20 01 49.72	+ 0.411	+0.00377	−0.027
B.....4594	5.9	05 05.4	+2.98	+ 3 58 38.59	+ 0.434	+0.00435	−0.012
Green...8155	6.9	05 16.8	−0.07	+66 56 01.30	+ 0.461	−0.00010	.....
B.....4595	6.0	05 23.8	+3.00	+ 3 06 27.78	+ 0.268	+0.00437	−0.204
A.....5786	6.4	05 43.5	+2.29	+30 26 54	+ 0.50	+0.003	.....
A.....5789	6.3	06 07.6	+2.68	+16 27 33	+ 0.54	+0.004	.....
Green...3047	6.7	06 09.5	−2.20	+75 46 45.68	+ 0.558	−0.00321	+0.020
B.....4597	5.8	06 10.5	+3.00	+ 3 18 21.30	+ 0.542	+0.00437	+0.002
Green...9783	6.8	06 13.2	+0.30	+64 12 25.50	+ 0.545	+0.00044	+0.002
A.....5793	6.5	06 39.4	+2.01	+38 27 20	+ 0.58	+0.003	.....
B.....4602	6.3	06 46.9	−4.48	+79 59 24.08	+ 0.715	−0.00649	+0.122
B.....4601	6.0	06 51.1	+2.09	+36 26 51.02	+ 0.601	+0.00304	+0.002
B.....4603	6.0	06 52.9	−4.48	+79 59 35.60	+ 0.716	−0.00650	+0.114
G.....4518	6.9	07 14.8	+0.94	+57 57 45.07	+ 0.634	+0.00136	.....
G.....4521	6.9	08 14.0	+1.99	+39 04 45.09	+ 0.721	+0.00289	.....
A.....5800	6.5	08 24.7	+3.17	− 4 02 10	+ 0.74	+0.005	.....
A.....5801	6.2	08 27.6	+2.19	+33 25 27	+ 0.74	+0.003	.....
B.....4606	5.1	08 31.0	+2.26	+31 22 56.17	+ 0.761	+0.00328	+0.016
B.....4609	6.2	08 41.0	+1.23	+54 15 33.62	+ 1.006	+0.00181	+0.247
G.....4526	6.7	09 13.4	+1.58	+48 16 06.13	+ 0.807	+0.00229	.....
A.....5807	6.5	09 20.6	+3.02	+ 2 22 06	+ 0.81	+0.004	.....
A.....5808	6.2	09 27.6	+2.54	+21 51 13	+ 0.83	+0.004	.....
G.....4527	6.6	09 51.0	+1.91	+41 07 24.86	+ 0.862	+0.00277	.....
A.....5815	(6.3)	10 02.1	+0.72	+60 23 10	+ 0.88	+0.001	.....
B.....4614	6.2	10 04.6	+2.00	+38 44 51.87	+ 0.880	+0.00290	−0.001
G.....4531	6.3	11 13.6	+3.16	− 3 38 52.75	+ 0.981	+0.00460	.....
A.....5822	6.2	11 34.0	+3.02	+ 2 20 52	+ 1.01	+0.004	.....
B.....4618	6.3	12 10.0	+3.14	− 3 01 57.18	+ 0.790	+0.00457	−0.274
G.....4538	6.8	12 38.3	+1.53	+49 07 34.23	+ 1.186	+0.00222	+0.081
B.J.....684	5.6	12 50.8	+1.87	+42 07 41.31	+ 1.116	+0.00271	−0.007
G.....4540	6.8	12 57.4	+1.72	+45 10 51.18	+ 1.014	+0.00250	−0.119
B.....4622	6.8	13 06.5	+1.05	+56 33 26.29	+ 1.180	+0.00153	+0.034
B.J.....685	5.0	13 22.7	+0.35	+64 21 59.99	+ 1.198	+0.00057	+0.029
A.....5834	6.5	13 55.8	+2.75	+13 44 31	+ 1.22	+0.004	.....
A.....5835	6.5	18 14 10.4	+2.64	+18 05 46	+ 1.24	+0.004	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....4624	6.4	18 14 15.5	+1.90	+40 54 02.30	+ 1.312	+0.00274	+0.066
A.....5837	6.5	14 22.6	+2.50	+23 15 42	+ 1.26	+0.004	.....
B.....4626	5.7	14 48.4	+2.90	+ 7 13 21.29	+ 1.300	+0.00421	+0.006
B.....4629	5.7	15 28.5	+2.47	+24 24 28.84	+ 1.349	+0.00359	−0.004
G.....4548	6.6	15 46.8	+1.67	+46 22 13.80	+ 1.380	+0.00243	.....
Green...6730	6.1	15 48.6	−0.35	+68 43 24.13	+ 1.321	−0.00051	−0.061
B.....4635	4.9	16 22.4	+2.99	+ 3 20 09.45	+ 1.428	+0.00434	−0.003
A.....5850	6.2	16 23.6	+2.31	+29 37 36	+ 1.43	+0.003	.....
B.....4636	5.2	16 29.4	+2.54	+21 55 21.05	+ 1.380	+0.00368	−0.061
B.J.....688	3.2	16 39.2	+3.10	− 2 55 22.36	+ 0.757	+0.00445	−0.698
B.....4639	4.5	16 42.4	+2.10	+36 01 24.09	+ 1.492	+0.00305	+0.031
B.....4640	6.8	16 55.0	+2.33	+28 56 34.68	+ 1.475	+0.00339	−0.003
A.....5856	6.3	17 03.2	+2.95	+ 5 23 39	+ 1.49	+0.004	.....
B.....4643	5.7	17 29.0	+2.31	+29 48 56.32	+ 1.585	+0.00335	+0.057
B.....4644	5.2	17 30.4	+2.34	+28 49 35.89	+ 1.576	+0.00340	+0.046
Green...6731	6.7	17 30.5	−0.35	+68 42 21.80	+ 1.433	−0.00053	−0.097
B.....4647	6.5	17 49.6	+1.41	+51 18 27.96	+ 1.505	+0.00203	−0.052
B.....4649	5.9	18 23.5	+2.50	+23 14 19.97	+ 1.682	+0.00363	+0.075
A.....5865	6.2	18 24.1	+2.79	+11 59 04	+ 1.61	+0.004	.....
B.....4651	5.4	18 50.4	+2.65	+17 46 49.91	+ 1.654	+0.00385	+0.007
A.....5869	6.4	19 02.3	+2.68	+16 38 33	+ 1.66	+0.004	.....
B.....4653	5.3	19 14.6	+1.53	+49 04 32.73	+ 1.735	+0.00223	+0.054
A.....5872	6.4	19 19.6	+3.16	− 3 37 43	+ 1.69	+0.005	.....
G.....4564	6.4	19 22.4	+1.41	+51 15 25.04	+ 1.693	+0.00205	.....
B.J.....690	3.9	19 51.8	+2.56	+21 43 41.30	+ 1.478	+0.00372	−0.257
G.....4567	6.9	20 05.6	+1.40	+51 29 45.55	+ 1.757	+0.00202	.....
A.....5880	6.1	20 17.1	+3.11	− 1 37 42	+ 1.78	+0.005	.....
B.....4661	5.1	21 15.9	+1.98	+39 27 27.32	+ 1.848	+0.00286	−0.010
G.....4571	6.5	21 18.2	+1.79	+43 51 29.86	+ 1.861	+0.00260	.....
B.....4660	6.0	21 19.0	+2.89	+ 7 58 51.34	+ 1.861	+0.00418	−0.001
G.....4572	6.5	21 23.7	+1.86	+42 25 04.34	+ 1.870	+0.00269	.....
A.....5884	6.4	21 23.8	+2.38	+27 20 40	+ 1.86	+0.003	.....
A.....5887	6.5	21 50.6	+2.72	+14 54 52	+ 1.91	+0.004	.....
B.J.....693	4.3	22 02.9	−0.86	+71 17 24.23	+ 1.959	−0.00125	+0.033
B.....4669	5.9	22 30.5	+2.31	+29 46 35.28	+ 1.933	+0.00335	−0.033
B.J.....694	5.1	22 35.8	+0.88	+58 44 53.93	+ 2.032	+0.00126	+0.059
B.....4667	(5.4)	22 36.2	+3.07	+ 0 08 30.73	+ 1.967	+0.00444	−0.006
B.J.....695	3.6	22 40.8	−1.08	+72 41 38.43	+ 1.615	−0.00141	−0.366
A.....5905	6.2	23 21.5	+2.99	+ 3 41 35	+ 2.04	+0.004	.....
B.....4673	5.9	23 35.0	+2.93	+ 6 08 18.32	+ 2.050	+0.00424	−0.009
A.E. c. Serpen.	5.4	24 59.9	+3.12	− 2 02 38.92	+ 2.147	+0.00452	−0.031
Green...9001	5.0	25 43.7	+0.17	+65 30 27.46	+ 2.203	+0.00026	−0.043
B.....4683	6.0	25 51.8	+2.49	+23 48 20.55	+ 2.253	+0.00359	−0.005
G.....4604	6.7	26 21.6	+1.80	+43 52 28.80	+ 2.433	+0.00260	+0.131
B.....4688	6.7	26 27.9	+0.83	+59 29 20.11	+ 2.345	+0.00119	+0.035
B.....4692	5.8	27 04.2	+2.67	+16 51 56.39	+ 2.339	+0.00384	−0.023
B.....4693	6.1	27 18.2	+3.10	− 1 04 02.86	+ 2.380	+0.00447	−0.003
G.....4615	6.6	28 05.4	+1.92	+41 02 28.37	+ 2.451	+0.00277	.....
B.....4701	6.2	29 01.4	+2.50	+23 32 56.78	+ 2.540	+0.00360	+0.008
B.....4702	5.6	18 29 23.5	+2.29	+30 29 09.24	+ 2.557	+0.00330	−0.007

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		h m s	s	° ′ ″	″	″	″
G.....4623	6.8	18 29 50.7	+2.01	+38 46 03.26	+ 2.605	+0.00289	.....
Green...1667	6.6	29 58.0	−3.85	+79 09 42.57	+ 2.613	−0.00558	.....
G.....4627	6.6	30 04.8	+1.70	+46 01 25.75	+ 2.625	+0.00245	.....
G.....4629	6.6	30 13.3	+1.94	+40 27 46.02	+ 2.636	+0.00280	.....
Green...9003	6.5	30 58.7	+0.18	+65 21 58.75	+ 2.753	+0.00025	+0.051
B.....4707	5.0	31 01.4	+1.03	+56 58 35.15	+ 2.695	+0.00148	−0.010
B.....4706	6.0	31 14.9	+2.64	+18 07 50.91	+ 2.730	+0.00380	+0.005
G.....4635	6.3	31 15.1	+1.69	+46 08 51.18	+ 2.726	+0.00244	.....
B.....4708	5.9	31 45.7	+2.50	+23 31 55.59	+ 2.768	+0.00360	−0.001
A.....5942	6.3	31 52.3	+2.67	+16 54 14	+ 2.69	+0.004	−0.09
B.....4711	5.5	31 54.2	+1.36	+52 16 54.11	+ 2.789	+0.00195	+0.007
A.....5943	6.4	31 58.4	+2.17	+34 23 04	+ 2.79	+0.003	.....
B.....4712	5.6	32 10.2	+2.86	+ 9 03 03.26	+ 2.677	+0.00412	−0.128
B.....4713	5.6	32 16.4	+2.92	+ 6 36 01.00	+ 2.674	+0.00420	−0.140
Green...1668	7.0	32 22.5	−4.11	+79 33 48.85	+ 2.823	−0.00595	.....
Green...7439	6.8	32 33.3	−0.15	+67 42 23.18	+ 2.839	−0.00023	.....
B.....4719	5.9	32 58.4	+3.08	− 0 23 09.20	+ 2.849	+0.00443	−0.025
A.....5955	6.5	33 06.7	+2.69	+16 07 14	+ 2.96	+0.004	+0.07
G.....4648	7.0	33 09.2	+1.84	+42 58 49.56	+ 2.890	+0.00264	.....
B.....4721	5.6	33 19.2	+2.20	+33 23 33.99	+ 2.903	+0.00316	−0.002
A.....5960	6.5	33 40.3	+3.10	− 1 11 29	+ 2.94	+0.004	.....
A.....5959	6.5	33 40.4	+3.15	− 3 16 23	+ 2.94	+0.005	.....
B.J.....699	0.1	33 53.5	+2.03	+38 41 57.80	+ 3.234	+0.00294	+0.281
G.....4651	6.2	34 00.3	+1.83	+43 08 42.80	+ 2.965	+0.00263	.....
B.J.....700	6.1	34 06.1	−2.88	+77 28 38.62	+ 2.969	−0.00417	−0.003
G.....4656	6.5	35 08.1	+1.98	+39 35 17.29	+ 3.063	+0.00284	.....
B.J.....701	6.2	35 56.3	+0.19	+65 24 29.02	+ 3.215	+0.00026	+0.084
Green....678	6.2	36 03.4	−7.84	+83 06 37.05	+ 3.114	−0.01131	−0.028
A.....5971	6.4	36 39.1	+1.93	+40 51 08	+ 3.20	+0.003	.....
B.....4730	5.9	36 44.9	+0.55	+62 26 39.30	+ 3.232	+0.00077	+0.031
G.....4672	6.5	37 18.8	+0.73	+60 37 36.27	+ 3.250	+0.00104	.....
Green...4350	6.9	37 30.6	−1.06	+72 17 59.31	+ 3.269	−0.00154	.....
B.....4733	6.0	37 48.8	+1.38	+52 06 39.49	+ 3.320	+0.00197	+0.027
G.....4680	6.5	38 45.9	+1.94	+40 37 52.90	+ 3.376	+0.00278	.....
A.....5993	6.2	40 09.1	+0.53	+62 39 34	+ 3.50	+0.001	.....
A.....5992	6.5	40 16.6	+2.00	+39 12 35	+ 3.51	+0.003	.....
B.....4740	5.1	40 17.4	+3.03	+ 1 58 03.84	+ 3.484	+0.00433	−0.022
G.....4688	6.7	40 22.9	+1.64	+47 29 00.62	+ 3.515	+0.00234	.....
A.....5994	6.2	40 26.8	+2.10	+36 27 47	+ 3.52	+0.003	.....
B.....4742	5.8	40 28.7	+2.25	+31 50 16.34	+ 3.380	+0.00322	−0.142
B.....4745	5.1	40 53.4	+1.16	+55 26 52.83	+ 3.580	+0.00165	+0.022
A.....5997	6.5	40 55.0	+2.50	+23 29 59	+ 3.57	+0.004	.....
G.....4689	7.0	41 02.5	+2.03	+38 26 24.24	+ 3.572	+0.00290	.....
B.....4744	6.0	41 02.9	+2.95	+ 5 24 20.85	+ 3.557	+0.00422	−0.014
B.....4747	5.0	41 21.4	+1.99	+39 34 31.10	+ 3.649	+0.00284	+0.051
B.....4748	6.7	41 21.5	+1.99	+39 34 34.74	+ 3.655	+0.00283	+0.057
B.....4749	4.6	41 23.9	+1.99	+39 31 05.04	+ 3.663	+0.00284	+0.062
G.....4696	6.9	41 26.9	+1.64	+47 31 28.26	+ 3.607	+0.00233	.....
G.....4698	6.1	41 34.0	+1.28	+53 46 46.36	+ 3.616	+0.00182	.....
B.....4752	4.4	18 41 40.4	+2.07	+37 30 37.54	+ 3.643	+0.00295	+0.017

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		h m s	s	° ′ ″	″	″	″
B.....4754	6.1	18 41 42.2	+2.07	+37 29 59.61	+ 3.639	+0.00295	+0.011
B.J.....703	4.1	41 47.3	+2.58	+20 27 34.46	+ 3.295	+0.00368	−0.340
Green...2311	6.9	41 47.8	−2.91	+77 36 00.06	+ 3.636	−0.00418	.....
B.....4751	6.0	41 49.7	+3.10	− 1 03 26.07	+ 3.608	+0.00442	−0.030
A.E.6 Aquilae	4.5	42 24.0	+3.18	− 4 50 41.33	+ 3.664	+0.00455	−0.023
B.....4758	5.0	42 26.8	+2.42	+26 33 54.99	+ 3.718	+0.00345	+0.026
A.....6013	6.3	42 44.4	+2.63	+18 36 34	+ 3.72	+0.004	.....
B.....4761	4.3	43 02.8	+2.65	+18 04 50.22	+ 3.849	+0.00378	+0.106
A.....6018	6.5	43 06.4	+1.21	+54 48 06	+ 3.75	+0.002	.....
B.....4763	6.4	43 14.7	+0.71	+60 57 08.64	+ 3.770	+0.00100	+0.010
A.....6020	6.4	43 20.4	+1.92	+41 20 40	+ 3.77	+0.003	.....
A.....6021	6.3	43 34.7	+2.98	+ 4 08 30	+ 3.79	+0.004	.....
Green...5399	6.6	44 11.7	−0.68	+70 41 52.83	+ 3.820	−0.00098	−0.022
G.....4712	6.4	44 25.6	+1.70	+46 12 57.89	+ 3.863	+0.00242	.....
A.....6025	6.4	44 30.8	+2.51	+23 24 51	+ 3.88	+0.004	.....
A.....6026	6.3	44 33.6	+2.26	+31 39 24	+ 3.87	+0.003	.....
Green....213	6.8	44 35.7	−18.95	+86 35 28.70	+ 3.904	−0.02712	+0.027
B.....4765	5.9	44 42.4	+1.34	+52 53 18.84	+ 3.870	+0.00190	−0.016
A.....6031	6.3	44 57.8	+2.62	+19 13 38	+ 3.87	+0.004	−0.04
A.....6030	6.5	45 02.2	+3.06	+ 0 44 03	+ 3.91	+0.004	.....
B.....4770	6.2	45 53.7	+1.58	+48 39 50.31	+ 4.028	+0.00224	+0.041
B.....4772	6.0	46 24.9	+2.23	+32 42 30.11	+ 4.018	+0.00317	−0.014
B.....4775	5.4	46 31.2	+2.24	+32 26 48.42	+ 4.033	+0.00318	−0.008
A.....6040	6.5	46 31.6	+2.82	+10 52 13	+ 4.04	+0.004	.....
G.....4726	6.5	46 36.3	+1.82	+43 37 43.26	+ 4.050	+0.00259	.....
B.....4773	6.3	46 38.6	+3.15	− 3 25 26.18	+ 4.015	+0.00448	−0.037
B.J.....705	(3.3)	46 45.4	+2.21	+33 15 27.74	+ 4.060	+0.00315	−0.002
Green...7446	7.0	46 56.7	−0.11	+67 40 10.29	+ 4.079	−0.00018	.....
G.....4732	7.0	47 43.4	+1.86	+42 48 17.09	+ 4.145	+0.00264	.....
A.....6049	6.2	47 54.4	+2.75	+13 51 26	+ 4.16	+0.004	.....
G.....4733	7.0	47 59.7	+1.82	+43 50 58.23	+ 4.168	+0.00257	.....
Green...3889	5.4	48 01.7	−1.48	+73 58 53.78	+ 4.244	−0.00213	+0.073
A.....6051	6.4	48 03.6	+2.36	+28 40 31	+ 4.17	+0.003	.....
B.....4779	5.5	48 25.8	+2.56	+21 18 57.76	+ 4.191	+0.00364	−0.013
G.....4737	6.7	48 26.1	+2.01	+39 12 42.43	+ 4.207	+0.00284	.....
A.....6054	6.4	48 26.8	+2.11	+36 25 51	+ 4.21	+0.003	.....
G.....4739	6.7	48 28.2	+1.26	+54 11 39.25	+ 4.210	+0.00178	.....
G.....4748	6.3	49 11.7	+0.74	+60 43 45.07	+ 4.272	+0.00104	.....
G.....4745	6.1	49 13.8	+1.93	+41 16 23.28	+ 4.274	+0.00273	.....
A.E.50 Draco.	5.4	49 17.0	−1.92	+75 19 40.87	+ 4.329	−0.00276	+0.077
B.....4787	5.7	49 34.1	+1.35	+52 51 31.32	+ 4.588	+0.00189	+0.286
B.J.....707	4.6	49 52.5	+0.89	+59 16 41.14	+ 4.352	+0.00126	+0.024
G.....4753	6.2	50 23.6	+1.94	+40 52 55.43	+ 4.374	+0.00275	.....
B.....4794	5.7	50 34.9	+2.09	+36 51 31.04	+ 4.380	+0.00296	−0.009
A.....6072	5.7	50 38.7	+2.39	+27 47 53	+ 4.39	+0.003	.....
B.....4797	4.7	50 56.9	+2.53	+22 31 49.77	+ 4.424	+0.00358	+0.004
B.....4799	5.1	50 59.8	+1.49	+50 35 44.91	+ 4.391	+0.00210	−0.033
B.....4798	5.8	51 04.1	+2.92	+ 6 30 07.15	+ 4.340	+0.00414	−0.090
B.....4800	4.5	51 21.4	+2.10	+36 47 01.71	+ 4.461	+0.00296	+0.006
B.....4801	6.3	18 51 34.6	+2.20	+33 51 11.86	+ 4.480	+0.00310	+0.007

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....6079	6.0	18 51 42.2	+3.12	− 1 54 58	+ 4.48	+0.004	.....
B.J.....709	4.5	51 44.7	+2.98	+ 4 05 08.83	+ 4.516	+0.00422	+0.028
B.....4803	5.0	51 46.2	+2.98	+ 4 05 03.04	+ 4.508	+0.00422	+0.018
A.....6082	6.3	51 53.9	+3.02	+ 2 21 15	+ 4.50	+0.004	.....
B.....4805	5.8	51 59.2	+1.92	+41 29 12.85	+ 4.501	+0.00271	−0.007
Green...1670	6.3	52 00.1	−4.18	+79 50 07.06	+ 4.600	−0.00596	+0.090
B.....4807	6.0	52 07.9	+2.65	+17 59 31.19	+ 4.347	+0.00374	−0.173
G.....4773	6.5	52 12.7	+1.04	+57 22 19.96	+ 4.529	+0.00146	.....
B.....4811	6.0	52 24.7	+1.58	+48 44 46.89	+ 4.413	+0.00222	−0.131
B.J.....711	(4.5)	52 35.8	+1.83	+43 49 37.39	+ 4.636	+0.00258	+0.076
B.....4813	5.7	52 45.0	+3.02	+ 2 24 58.87	+ 4.556	+0.00427	−0.018
B.....4815	5.5	53 39.2	+2.25	+32 47 07.42	+ 4.490	+0.00319	−0.160
A.....6100	6.5	53 59.8	+2.93	+ 6 07 19	+ 4.68	+0.004	.....
B.....4817	5.7	54 14.5	+2.67	+17 14 21.56	+ 4.692	+0.00376	−0.008
Green...4838	6.9	54 18.5	−0.85	+71 40 13.91	+ 4.707	−0.00122	.....
B.....4818	6.2	54 39.0	+2.75	+13 47 06.26	+ 4.683	+0.00388	−0.052
A.....6107	6.4	54 50.3	+2.61	+19 40 17	+ 4.76	+0.004	.....
B.....4820	5.4	54 57.1	+2.76	+13 30 07.41	+ 4.641	+0.00389	−0.120
B.....4821	6.0	54 57.1	+2.05	+38 08 37.92	+ 4.760	+0.00289	−0.001
G.....4781	7.0	55 07.0	+2.72	+15 00 21.36	+ 4.777	+0.00384	.....
B.....4822	6.0	55 13.7	+1.02	+57 41 42.70	+ 4.719	+0.00141	−0.065
G.....4785	6.8	55 19.7	+2.00	+39 31 09.85	+ 4.794	+0.00281	.....
G.....4786	6.7	55 27.3	+2.00	+39 39 17.82	+ 4.804	+0.00281	.....
B.J.....714	5.0	55 30.2	−0.72	+71 10 37.33	+ 4.848	−0.00102	+0.040
B.J.....712	4.0	55 32.2	+2.72	+14 56 43.56	+ 4.730	+0.00383	−0.080
B.J.....713	3.2	55 34.6	+2.24	+32 33 56.06	+ 4.812	+0.00316	−0.002
A.....6114	6.4	55 50.0	+1.96	+40 33 18	+ 4.84	+0.003	.....
B.....4827	6.7	55 59.5	+0.99	+58 06 04.31	+ 4.895	+0.00139	+0.046
Green...9015	5.8	56 02.0	+0.27	+65 08 13.75	+ 4.854	+0.00037	.....
B.....4826	5.5	56 05.5	+2.44	+26 06 18.99	+ 4.838	+0.00344	−0.019
G.....4790	6.2	56 10.4	+2.02	+39 05 32.54	+ 4.866	+0.00284	.....
A.....6118	6.4	56 10.5	+2.53	+22 41 18	+ 4.87	+0.004	.....
B.....4833	6.8	56 23.1	+0.61	+62 16 28.71	+ 4.839	+0.00084	−0.043
B.....4837	7.0	56 34.5	−1.99	+75 39 57.61	+ 4.887	−0.00283	−0.012
B.....4838	6.7	56 35.5	−1.99	+75 40 03.39	+ 4.924	−0.00283	+0.024
B.....4831	5.2	56 37.1	+2.26	+32 01 08.58	+ 4.909	+0.00318	+0.007
A.....6129	6.5	56 45.2	+1.49	+50 41 00	+ 4.91	+0.002	.....
G.....4802	6.7	57 22.1	+1.96	+40 33 25.49	+ 4.967	+0.00275	.....
G.....4804	7.0	57 34.4	+2.00	+39 43 01.68	+ 4.984	+0.00280	.....
A.....6132	6.2	57 36.1	+2.21	+33 40 25	+ 4.99	+0.003	.....
B.....4839	5.7	57 38.0	+2.44	+26 09 47.07	+ 4.981	+0.00342	−0.007
B.....4842	5.5	57 57.9	+1.51	+50 24 19.52	+ 5.004	+0.00212	−0.012
G.....4807	6.8	57 59.1	+1.90	+42 07 40.61	+ 4.908	+0.00266	−0.111
A.....6134	6.4	58 01.9	+2.89	+ 8 14 36	+ 5.02	+0.004	.....
B.....4841	5.6	58 10.1	+3.16	− 3 49 48.11	+ 5.040	+0.00444	+0.007
B.....4846	5.2	58 53.6	+1.70	+46 48 24.26	+ 5.006	+0.00238	−0.089
B.....4848	5.7	58 56.6	+1.19	+55 31 44.54	+ 5.090	+0.00165	−0.009
A.....6140	6.3	58 57.2	+2.61	+19 31 45	+ 5.07	+0.004	−0.04
B.....4845	6.0	58 59.0	+3.03	+ 1 41 17.22	+ 5.037	+0.00426	−0.066
Green...6070	6.4	18 59 26.3	−0.37	+69 24 11.66	+ 5.143	−0.00054	.....

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		h m s	s	° ′ ″	″	″	″
B.....4855	6.7	19 00 00.0	+1.41	+52 07 47.71	+ 5.165	+0.00196	−0.024
B.....4853	5.8	00 12.5	+3.17	− 4 09 57.50	+ 5.178	+0.00444	−0.028
A.....6153	6.4	00 38.8	+3.11	− 1 38 54	+ 5.24	+0.004	.....
Green...3893	7.0	00 48.0	−1.42	+74 00 16.92	+ 5.193	−0.00202	−0.064
G.....4821	6.8	00 49.6	+0.84	+59 59 41.10	+ 5.260	+0.00116	.....
B.J.....716	3.0	01 16.4	+2.76	+13 43 44.50	+ 5.195	+0.00386	−0.101
N.A.λ Aquilae	3.5	01 28.4	+3.18	− 5 01 04.92	+ 5.232	+0.00446	−0.083
A.....6157	6.3	01 30.0	+2.31	+30 35 52	+ 5.31	+0.003	.....
B.....4860	6.0	01 32.1	+2.29	+31 36 34.09	+ 5.270	+0.00320	−0.048
Green...2688	6.5	01 44.5	−2.48	+76 55 22.49	+ 5.266	−0.00353	−0.070
A.....6163	6.4	02 16.9	+2.34	+29 47 02	+ 5.38	+0.003	.....
Green....682	6.8	02 34.7	−8.73	+83 47 05.21	+ 5.384	−0.01228	−0.024
B.....4864	(5.2)	02 44.4	+2.82	+10 55 55.52	+ 5.392	+0.00394	−0.027
G.....4833	6.8	02 50.3	+1.55	+49 47 05.71	+ 5.429	+0.00215	.....
B.....4866	5.9	02 53.2	+2.50	+24 06 37.89	+ 5.435	+0.00349	+0.003
B.....4869	5.5	02 53.8	+1.35	+53 15 29.19	+ 5.454	+0.00187	+0.021
Green...6751	6.9	02 56.6	−0.14	+68 11 22.59	+ 5.438	−0.00022	.....
B.....4867	5.7	03 03.4	+2.38	+28 29 10.80	+ 5.514	+0.00333	+0.068
B.....4870	6.6	03 22.0	+1.95	+41 16 25.95	+ 5.461	+0.00271	−0.011
Green....878	6.8	03 37.8	−6.35	+82 14 32.58	+ 5.526	−0.00893	+0.030
A.....6178	6.0	03 55.0	+2.69	+16 43 17	+ 5.20	+0.004	−0.32
B.....4872	5.3	04 01.3	+2.27	+32 21 33.07	+ 5.541	+0.00317	+0.013
B.J.....719	5.2	04 05.4	+2.14	+35 57 30.77	+ 5.529	+0.00298	−0.003
A.....6181	6.5	04 12.2	+2.57	+21 33 14	+ 5.66	+0.004	+0.11
G.....4842	6.9	04 22.7	+1.96	+40 54 43.34	+ 5.558	+0.00272	.....
B.....4875	5.5	04 35.4	+2.94	+ 5 55 51.97	+ 5.501	+0.00409	−0.074
A.....6187	6.4	05 13.9	+3.09	− 0 34 24	+ 5.63	+0.004	.....
A.....6190	6.5	05 28.3	+2.19	+34 36 56	+ 5.65	+0.003	.....
G.....4851	5.0	06 19.7	+1.42	+52 16 55.78	+ 5.722	+0.00195	.....
B.....4885	6.0	08 18.9	+2.30	+31 07 57.46	+ 5.880	+0.00318	−0.007
Green...4843	7.0	08 23.9	−0.84	+71 55 37.46	+ 5.895	−0.00120	.....
G.....4859	5.8	08 24.0	+1.99	+40 16 45.92	+ 5.896	+0.00275	.....
A.....6202	6.4	08 45.0	+2.57	+21 24 08	+ 5.93	+0.004	.....
B.....4887	5.3	09 10.4	+3.02	+ 2 08 23.71	+ 5.953	+0.00419	−0.006
B.....4890	6.5	09 25.7	+0.23	+65 49 40.33	+ 6.009	+0.00030	+0.029
G.....4866	6.5	09 42.9	+1.69	+47 13 19.77	+ 6.006	+0.00233	.....
B.....4893	6.8	09 45.8	+1.55	+49 41 14.91	+ 6.634	+0.00210	+0.626
B.....4894	5.4	09 58.5	+1.14	+56 42 19.70	+ 6.066	+0.00156	+0.040
B.....4897	4.5	10 41.7	+2.04	+38 59 26.04	+ 6.083	+0.00281	−0.003
B.J.λUrs.Min.	6.8	10 58.6	−70.39	+89 00 21.89	+ 6.119	−0.09792	+0.009
A.....6212	6.3	11 08.0	+2.61	+20 01 46	+ 6.13	+0.004	.....
B.....4898	5.8	11 14.0	+2.73	+14 55 34.40	+ 6.111	+0.00377	−0.020
B.....4899	5.8	11 24.7	+2.59	+21 04 27.19	+ 6.157	+0.00357	+0.011
A.....6215	6.0	11 55.0	+2.33	+30 22 09	+ 6.19	+0.003	.....
B.....4902	5.6	12 03.8	+2.97	+ 4 40 31.36	+ 6.186	+0.00409	−0.014
B.....4907	5.3	12 18.8	+1.07	+57 32 58.04	+ 6.146	+0.00146	−0.075
B.....4905	5.7	12 19.5	+2.75	+14 23 04.96	+ 6.235	+0.00378	+0.013
Gr.....1224	4.6	12 20.9	+2.58	+21 13 50.97	+ 6.224	+0.00355	−0.001
A.....6221	6.4	12 23.2	+2.41	+27 46 00	+ 6.22	+0.003	.....
Green...2689	5.2	19 12 28.8	−2.17	+76 24 39.61	+ 6.104	−0.00301	−0.133

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		h m s	s	° ′ ″	″	″	″
B.J.....723	3.0	19 12 32.2	+0.02	+67 30 11.50	+ 6.327	+0.00003	+0.087
G.....4880	7.0	12 44.6	+2.00	+40 12 06.40	+ 6.257	+0.00274	.....
B.....4910	6.5	12 58.5	+1.57	+49 54 41.16	+ 6.261	+0.00214	−0.014
B.J.....724	4.3	13 14.6	+2.08	+37 58 22.53	+ 6.297	+0.00284	−0.001
A.....6224	6.4	13 15.4	+3.03	+ 1 52 14	+ 6.30	+0.004	.....
B.J.....725	5.4	13 35.5	+2.82	+11 25 56.96	+ 6.340	+0.00387	+0.013
B.....4917	5.6	13 55.1	+2.54	+22 51 46.13	+ 6.345	+0.00348	−0.009
Green...8198	6.8	13 56.5	+0.09	+66 57 22.30	+ 6.357	+0.00010	.....
B.....4916	5.4	13 57.7	+3.05	+ 0 55 15.25	+ 6.373	+0.00420	+0.015
B.....4919	6.8	14 14.7	+3.07	+ 0 10 27.69	+ 6.390	+0.00422	+0.009
B.....4920	6.2	14 16.5	+1.72	+46 49 45.75	+ 6.669	+0.00235	+0.285
B.J.....726	3.8	15 01.4	+1.39	+53 12 07.32	+ 6.565	+0.00190	+0.119
B.....4924	5.6	15 27.4	+2.80	+12 12 28.15	+ 6.499	+0.00384	+0.018
B.....4925	6.2	15 39.1	+2.82	+11 22 02.97	+ 6.519	+0.00387	+0.021
A.....6244	6.5	15 51.1	+2.11	+37 16 44	+ 6.52	+0.003	.....
B.....4928	5.7	15 57.1	+3.10	− 1 03 36.94	+ 6.521	+0.00424	−0.001
G.....4908	6.8	16 00.3	+0.59	+63 02 38.07	+ 6.528	+0.00078	.....
G.....4898	7.0	16 02.6	+3.18	− 4 40 13.73	+ 6.531	+0.00435	.....
G.....4906	6.5	16 13.7	+1.60	+49 24 07.22	+ 6.548	+0.00218	.....
A.....6251	6.4	16 29.2	+2.12	+37 10 09	+ 6.57	+0.003	.....
A.....6252	6.5	17 15.9	+2.19	+35 01 00	+ 6.63	+0.003	.....
B.J.....729	4.5	17 17.4	−1.13	+73 11 19.21	+ 6.743	−0.00163	+0.110
G.....4911	6.5	17 24.8	+2.02	+39 45 25.10	+ 6.644	+0.00276	.....
B.....4939	6.6	17 37.2	+1.33	+54 12 29.36	+ 6.632	+0.00180	−0.028
B.....4937	6.1	17 43.9	+3.08	− 0 25 23.98	+ 6.643	+0.00422	−0.026
G.....4914	6.6	18 10.3	+1.92	+42 31 02.04	+ 6.707	+0.00261	.....
A.....6260	6.0	18 36.9	+1.10	+57 28 29	+ 6.75	+0.001	.....
Green...9828	6.3	19 04.6	+0.47	+64 13 13.64	+ 6.787	+0.00062	+0.005
B.....4942	5.2	19 09.7	+2.46	+26 05 20.56	+ 6.772	+0.00334	−0.015
A.....6263	6.2	19 11.2	+2.25	+33 20 45	+ 6.79	+0.003	.....
G.....4925	6.8	19 25.4	+1.45	+52 12 09.83	+ 6.810	+0.00196	.....
Green...9035	4.6	20 12.7	+0.32	+65 32 27.81	+ 6.907	+0.00041	+0.033
B.....4947	6.2	20 19.6	+2.69	+16 45 42.18	+ 6.867	+0.00366	−0.016
B.....4949	5.0	20 34.6	+2.36	+29 26 41.16	+ 6.914	+0.00321	+0.010
Green...3902	6.7	20 39.9	−1.13	+73 22 41.45	+ 6.912	−0.00158	.....
B.....4950	5.4	20 40.7	+2.86	+11 45 03.95	+ 7.543	+0.00395	+0.631
B.J.....730	3.3	20 57.6	+3.03	+ 2 56 04.87	+ 7.016	+0.00414	+0.081
B.....4957	6.7	21 02.2	+1.57	+50 05 41.17	+ 6.951	+0.00212	+0.010
B.....4958	6.1	21 05.9	+1.90	+43 12 43.53	+ 6.908	+0.00257	−0.039
A.....6281	6.5	21 27.1	+2.61	+20 05 39	+ 6.98	+0.004	0.00
B.....4960	5.4	21 31.6	+2.63	+19 37 17.09	+ 6.909	+0.00358	−0.073
B.....4961	6.4	21 42.3	+2.48	+24 44 59.06	+ 6.364	+0.00334	−0.631
B.....4962	4.9	21 54.9	+3.07	+ 0 09 30.77	+ 7.019	+0.00416	+0.005
B.....4963	6.0	22 13.1	+2.79	+12 50 31.21	+ 7.104	+0.00378	+0.066
B.....4965	5.8	22 17.4	+2.62	+19 55 06.39	+ 7.005	+0.00354	−0.039
B.....4967	6.3	22 32.4	+2.62	+19 42 42.79	+ 7.011	+0.00355	−0.054
B.....4972	5.2	22 54.7	+2.16	+36 08 12.47	+ 7.101	+0.00292	+0.006
Gr.....1242	6.8	23 11.9	+1.83	+44 45 07.11	+ 7.045	+0.00246	−0.076
G.....4948	6.9	23 16.3	+1.83	+44 49 54.84	+ 7.126	+0.00246	.....
G.....4949	6.7	19 23 41.2	+2.03	+39 46 46.22	+ 7.161	+0.00274	.....

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		h m s	s	° ′ ″	″	″	″
A.....6292	6.1	19 23 49.7	+3.01	+ 2 44 48	+ 7.17	+0.004	.....
B.....4975	6.9	24 09.1	+1.09	+57 50 43.44	+ 7.194	+0.00145	−0.003
B.....4974	6.0	24 27.9	+3.03	+ 1 45 57.45	+ 7.186	+0.00410	−0.036
N.A. α Vulpec.	4.6	24 57.6	+2.50	+24 28 55.61	+ 7.155	+0.00335	−0.109
B.....4978	6.1	25 11.7	+2.50	+24 34 56.08	+ 7.277	+0.00337	−0.005
B.....4980	5.9	25 13.7	+1.47	+52 08 11.94	+ 7.252	+0.00196	−0.032
B.....4977	5.9	25 14.1	+2.76	+14 24 36.51	+ 7.251	+0.00372	−0.033
A.....6304	6.5	25 24.0	+0.70	+62 22 19	+ 7.30	+0.001	.....
B.....4981	6.8	25 25.2	+2.62	+20 05 37.02	+ 7.280	+0.00352	−0.019
G.....4962	7.0	25 35.1	+2.04	+39 45 17.61	+ 7.315	+0.00274	.....
A.....6303	6.3	25 39.3	+3.01	+ 2 42 58	+ 7.32	+0.004	.....
B.....4983	5.3	25 57.4	+3.14	− 2 58 37.53	+ 7.330	+0.00423	−0.013
A.....6306	6.4	26 02.8	+3.00	+ 3 15 21	+ 7.35	+0.004	.....
Green....684	6.4	26 43.0	−7.46	+83 17 21.31	+ 7.443	−0.01014	+0.036
B.J.....732	3.0	27 05.5	+2.42	+27 46 12.36	+ 7.428	+0.00324	−0.008
B.....4987	5.6	27 07.6	+2.42	+27 46 32.02	+ 7.430	+0.00324	−0.008
B.J.....734	6.4	27 09.5	−3.56	+79 25 23.22	+ 7.406	−0.00484	−0.035
B.J.....733	3.9	27 26.2	+1.51	+51 32 15.42	+ 7.588	+0.00202	+0.125
A.....6309	6.4	27 31.5	+2.17	+36 02 21	+ 7.47	+0.003	.....
A.....6311	6.1	27 40.4	+2.46	+26 25 32	+ 7.48	+0.003	.....
G.....4983	6.7	28 16.3	+1.29	+55 13 43.61	+ 7.643	+0.00171	+0.110
B.....4992	4.8	28 25.6	+2.23	+34 15 39.69	+ 7.541	+0.00298	−0.003
B.....4994	5.7	28 56.4	+1.59	+50 06 47.97	+ 7.623	+0.00211	+0.038
G.....4994	6.6	29 30.6	+1.31	+55 04 05.99	+ 7.744	+0.00173	+0.110
N.A. μ Aquilae	4.6	29 41.6	+2.93	+ 7 11 14.50	+ 7.502	+0.00394	−0.146
G.....5003	6.6	30 26.3	+1.80	+45 50 37.30	+ 7.709	+0.00239	.....
G.....5002	6.6	30 28.4	+2.09	+38 33 55.00	+ 7.712	+0.00278	.....
B.....4998	5.1	30 37.7	+2.63	+19 34 34.32	+ 7.720	+0.00352	−0.002
A.....6327	6.1	31 12.9	+1.65	+49 03 58	+ 7.77	+0.002	.....
B.....5000	5.6	31 16.4	+2.38	+29 15 51.86	+ 7.792	+0.00318	+0.018
Green...5420	6.3	31 44.0	−0.46	+70 47 37.68	+ 7.814	−0.00065	.....
B.....5002	5.5	31 45.2	+1.96	+42 12 54.03	+ 7.792	+0.00260	−0.021
A.....6332	6.4	31 45.5	+0.95	+59 57 42	+ 7.82	+0.001	.....
B.....5005	5.9	32 00.0	+1.55	+51 02 34.65	+ 7.630	+0.00206	−0.203
B.....5004	4.5	32 03.9	+3.10	− 1 29 12.23	+ 7.820	+0.00414	−0.017
G.....5013	7.0	32 04.6	+1.79	+46 16 05.88	+ 7.841	+0.00236	.....
G.....5014	6.5	32 06.3	+1.71	+47 58 05.31	+ 7.843	+0.00226	.....
Green...6085	4.8	32 32.2	−0.12	+69 30 30.73	+ 6.109	−0.00004	−1.766
B.....5007	6.2	32 34.2	+2.16	+36 44 39.29	+ 7.873	+0.00286	−0.006
A.....6336	6.2	32 37.5	+2.83	+11 04 19	+ 7.89	+0.004	.....
B.....5008	5.6	33 00.9	+3.18	− 4 50 56.83	+ 7.855	+0.00424	−0.059
B.....5010	5.8	33 13.0	+2.72	+16 15 36.13	+ 7.943	+0.00361	+0.013
B.....5011	6.8	33 31.2	+1.61	+50 02 10.74	+ 7.987	+0.00212	+0.032
G.....5031	6.8	33 40.6	+1.91	+43 30 13.11	+ 7.969	+0.00252	.....
G.....5032	6.5	33 46.8	+2.11	+38 10 52.66	+ 7.979	+0.00279	.....
B.....5013	6.8	33 49.1	+0.64	+63 14 01.82	+ 7.985	+0.00083	+0.007
B.....5012	5.4	33 50.7	+1.86	+44 29 42.21	+ 7.869	+0.00244	−0.111
B.J.....738	4.5	34 01.7	+1.61	+50 00 44.02	+ 8.243	+0.00212	+0.247
G.....5039	6.5	34 07.8	+1.20	+56 47 15.77	+ 8.006	+0.00157	.....
G.....5034	6.8	19 34 08.3	+2.10	+38 23 26.30	+ 8.007	+0.00278	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....6346	6.5	19 34 21.0	+2.22	+34 49 00	+ 8.03	+0.003	.....
B.....5018	5.2	34 45.1	+2.96	+ 5 11 31.47	+ 8.053	+0.00392	0.000
Green...4861	6.7	35 19.6	−0.58	+71 24 19.35	+ 8.026	−0.00085	−0.075
A.....6350	6.5	35 21.0	+2.71	+16 21 54	+ 8.11	+0.004	.....
Gr.....1260	4.8	35 49.3	+2.37	+29 56 43.12	+ 8.189	+0.00312	+0.047
B.....5023	4.5	36 04.4	+2.68	+17 48 22.26	+ 8.127	+0.00354	−0.032
B.....5022	5.8	36 05.2	+3.09	− 0 49 49.53	+ 8.171	+0.00409	+0.010
A.....6355	6.3	36 21.8	+2.26	+33 46 14	+ 8.19	+0.003	.....
B.....5024	5.4	36 30.7	+1.95	+42 36 34.98	+ 8.219	+0.00257	+0.024
B.....5026	6.0	36 39.8	+1.35	+54 45 45.30	+ 8.377	+0.00177	+0.170
A.....6359	6.3	36 50.7	+1.82	+45 44 53	+ 8.22	+0.002	.....
A.....6358	6.1	36 55.6	+2.78	+13 36 22	+ 8.23	+0.004	.....
A.E.β Sagittae	4.4	37 00.4	+2.69	+17 16 01.17	+ 8.202	+0.00355	−0.038
A.....6363	6.5	37 22.9	+2.58	+22 14 32	+ 8.26	+0.003	.....
A.....6364	6.3	37 46.1	+1.94	+42 52 03	+ 8.30	+0.003	.....
B.....5029	6.6	37 59.5	+2.81	+11 58 52.89	+ 8.304	+0.00370	−0.008
B.....5031	5.2	38 03.6	+1.85	+45 18 39.98	+ 8.422	+0.00244	+0.105
B.....5033	5.5	38 19.9	+2.82	+11 36 50.09	+ 8.326	+0.00371	−0.013
G.....5063	6.9	38 34.1	+2.06	+39 48 35.01	+ 8.361	+0.00269	.....
B.....5035	6.4	38 52.9	+2.05	+40 02 25.70	+ 8.394	+0.00268	+0.011
Green...6764	6.9	39 12.0	0.00	+68 26 29.76	+ 8.411	−0.00002	.....
A.....6371	6.2	39 16.8	+2.31	+32 12 46	+ 8.42	+0.003	.....
B.....5037	6.2	39 25.4	+1.60	+50 18 57.55	+ 8.274	+0.00206	−0.152
B.....5038	6.3	39 28.3	+1.60	+50 18 30.57	+ 8.274	+0.00206	−0.156
A.....6373	6.3	39 37.2	+2.36	+30 27 46	+ 8.44	+0.003	.....
G.....5077	6.5	39 52.8	+2.04	+40 30 25.49	+ 8.464	+0.00266	.....
B.....5039	5.6	39 58.4	+2.49	+25 33 21.16	+ 8.483	+0.00326	+0.013
G.....5078	6.8	39 58.7	+2.06	+39 46 54.03	+ 8.472	+0.00269	.....
G.....5079	6.7	40 00.6	+2.11	+38 27 23.94	+ 8.474	+0.00275	.....
A.....6377	6.4	40 04.6	+1.33	+55 15 03	+ 8.48	+0.002	.....
A.....6376	6.4	40 14.8	+2.46	+26 55 11	+ 8.49	+0.003	.....
B.....5042	6.4	40 23.0	+2.79	+13 05 10.07	+ 8.488	+0.00365	−0.015
A.....6380	6.4	40 28.2	+2.26	+33 56 47	+ 8.51	+0.003	.....
B.....5043	6.1	40 44.8	+2.00	+41 33 23.53	+ 8.538	+0.00261	+0.007
B.J.....740	5.2	41 01.8	+2.16	+37 08 11.31	+ 8.589	+0.00282	+0.035
A.....6383	6.5	41 09.9	+3.14	− 3 06 08	+ 8.57	+0.004	.....
A.....6386	6.5	41 15.4	+2.25	+34 11 48	+ 8.58	+0.003	.....
B.....5046	6.1	41 17.3	+2.92	+ 7 23 39.35	+ 8.565	+0.00382	−0.009
G.....5092	6.6	41 29.4	+1.17	+57 48 05.54	+ 8.534	+0.00151	−0.058
G.....5091	6.5	41 45.9	+2.04	+40 29 57.26	+ 8.614	+0.00265	.....
G.....5093	6.6	41 49.3	+1.23	+56 49 28.25	+ 8.619	+0.00158	.....
B.J.....741	2.7	41 58.9	+2.85	+10 23 36.12	+ 8.628	+0.00372	0.000
B.J.....742	2.8	42 09.7	+1.88	+44 54 38.25	+ 8.682	+0.00244	+0.039
B.....5049	6.4	42 29.9	+2.24	+34 47 33.85	+ 8.657	+0.00290	−0.012
B.....5051	5.2	43 00.6	+2.28	+33 31 03.54	+ 8.258	+0.00295	−0.452
A.....6398	6.3	43 06.7	+2.30	+32 40 02	+ 8.72	+0.003	.....
B.J.....743	3.8	43 22.5	+2.67	+18 18 41.99	+ 8.751	+0.00348	+0.013
A.....6402	6.1	44 02.0	+2.51	+25 09 41	+ 8.79	+0.003	.....
B.....5054	6.0	44 16.1	+2.13	+38 11 03.34	+ 8.806	+0.00276	−0.003
Green...6094	5.9	19 44 26.5	−0.07	+69 07 01.55	+ 8.801	−0.00012	−0.024

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		h m s	s	° ′ ″	″	″	″
B.....5055	5.9	19 44 27.6	+2.83	+11 35 28.35	+ 8.817	+0.00367	−0.007
A.....6406	6.2	44 49.3	+1.76	+47 41 06	+ 8.85	+0.002	.....
B.....5058	5.0	44 59.0	+2.66	+18 54 56.58	+ 8.890	+0.00345	+0.025
G.....5118	6.5	46 02.9	+3.18	− 4 55 21.47	+ 8.950	+0.00411	.....
B.....5063	6.4	46 16.4	+2.12	+38 28 58.85	+ 8.950	+0.00273	−0.016
B.J.....745	1.0	46 23.5	+2.93	+ 8 37 48.16	+ 9.357	+0.00383	+0.382
A.....6414	6.4	46 29.7	+3.13	− 2 41 19	+ 8.99	+0.004	.....
Green...6765	6.4	46 38.3	+0.08	+68 12 47.07	+ 8.998	+0.00007	.....
G.....5127	6.0	46 39.4	+1.07	+59 11 37.06	+ 9.133	+0.00136	+0.135
B.....5065	5.3	46 42.9	+2.87	+10 11 23.31	+ 8.855	+0.00373	−0.145
B.....5068	5.0	47 11.6	+2.58	+22 22 50.37	+ 9.018	+0.00333	−0.019
B.....5069	5.5	47 22.6	+2.13	+38 29 24.70	+ 9.149	+0.00273	+0.097
B.....5070	5.8	47 32.0	+2.06	+40 22 12.22	+ 9.042	+0.00264	−0.022
A.....6421	6.4	47 32.8	+2.16	+37 35 48	+ 9.07	+0.003	.....
A.....6424	6.4	47 51.6	+2.83	+11 24 31	+ 9.10	+0.004	.....
B.J.....746	(4.0)	47 53.3	+3.06	+ 0 46 26.49	+ 9.083	+0.00394	−0.009
B.....5072	5.8	48 14.4	+2.52	+24 45 38.21	+ 9.138	+0.00324	+0.019
B.....5073	6.5	48 20.9	+2.68	+18 26 24.08	+ 9.125	+0.00344	−0.003
B.....5075	5.2	48 22.2	+1.51	+52 45 33.16	+ 9.059	+0.00192	−0.070
B.J.....747	3.8	48 29.0	−0.19	+70 02 19.29	+ 9.168	−0.00026	+0.029
B.....5074	5.8	48 35.9	+3.14	− 3 20 53.64	+ 9.153	+0.00403	+0.006
G.....5135	6.7	48 38.0	+1.79	+47 08 42.80	+ 9.152	+0.00229	.....
A.....6435	6.3	48 57.9	+2.20	+36 11 59	+ 9.18	+0.003	.....
G.....5140	6.6	48 59.0	+0.93	+60 58 37.52	+ 9.179	+0.00117	.....
B.....5083	5.8	49 16.4	+1.81	+46 47 40.47	+ 9.186	+0.00231	−0.014
B.....5085	6.0	49 28.1	+1.77	+47 41 56.63	+ 9.213	+0.00225	−0.002
B.....5086	4.7	49 38.2	+2.55	+23 50 38.77	+ 9.256	+0.00327	+0.028
B.....5089	5.0	49 53.2	+2.91	+ 8 13 40.70	+ 9.164	+0.00373	−0.083
B.....5090	5.7	50 08.2	+3.07	+ 0 02 16.18	+ 9.253	+0.00393	−0.013
A.....6448	6.4	50 16.5	+2.93	+ 6 54 15	+ 9.28	+0.004	.....
G.....5149	6.8	50 35.0	+2.04	+41 07 13.98	+ 9.304	+0.00259	.....
B.....5092	5.7	50 41.9	+2.55	+24 04 58.11	+ 9.302	+0.00325	−0.009
B.J.....749	3.7	50 53.5	+2.95	+ 6 10 52.97	+ 8.846	+0.00377	−0.480
G.....5162	7.0	51 25.4	+1.19	+57 55 46.83	+ 9.370	+0.00149	.....
B.....5097	5.1	51 26.6	+1.23	+57 17 14.10	+ 9.376	+0.00155	+0.010
B.....5096	6.0	51 31.0	+2.19	+36 45 28.30	+ 9.382	+0.00278	+0.008
B.....5098	(6.0)	51 56.0	+2.73	+16 23 45.03	+ 9.403	+0.00347	−0.003
B.....5099	5.4	51 58.5	+2.84	+11 11 03.10	+ 9.417	+0.00362	+0.008
A.....6459	6.3	51 58.7	+1.07	+59 28 12	+ 9.41	+0.001	.....
G.....5169	7.0	52 23.5	+1.80	+47 18 07.39	+ 9.444	+0.00227	.....
B.....5102	5.1	52 38.7	+2.14	+38 14 48.84	+ 9.451	+0.00272	−0.010
Gr.....1278	4.0	52 55.8	+2.25	+34 50 37.54	+ 9.456	+0.00285	−0.029
B.J.....750	5.0	53 18.2	+1.55	+52 11 58.72	+ 9.481	+0.00195	−0.031
A.....6466	6.2	53 24.5	+2.22	+36 00 34	+ 9.52	+0.003	.....
G.....5180	6.6	53 35.0	+1.19	+58 00 44.35	+ 9.536	+0.00149	.....
B.....5107	5.6	53 40.2	+2.72	+16 32 46.00	+ 9.551	+0.00346	+0.011
Green...9852	7.0	53 55.3	+0.61	+64 28 53.13	+ 9.537	+0.00075	−0.024
B.....5113	5.6	54 06.4	+2.09	+40 07 31.65	+ 9.572	+0.00264	−0.001
B.....5116	5.2	54 12.4	+1.15	+58 36 18.70	+ 9.557	+0.00143	−0.024
B.....5117	6.7	19 54 17.5	+1.64	+50 39 35.95	+ 9.588	+0.00206	0.000

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		h m s	s	° ′ ″	″	″	″
G.....5189	6.1	19 54 21.8	+1.30	+56 26 41.40	+ 9.596	+0.00163	.....
B.J.....752	3.6	54 45.3	+2.67	+19 14 49.70	+ 9.647	+0.00338	+0.024
A.....6480	6.4	54 48.1	+3.05	+ 1 07 50	+ 9.63	+0.004	.....
B.....5121	6.9	54 54.6	+2.02	+42 01 01.42	+ 9.620	+0.00254	−0.015
B.....5122	5.6	55 03.8	+2.38	+30 44 20.40	+ 9.638	+0.00300	−0.009
B.....5123	5.8	55 18.8	+2.57	+22 51 20.87	+ 9.678	+0.00324	+0.012
A.....6486	6.5	55 19.7	+2.16	+37 51 40	+ 9.67	+0.003	.....
B.....5125	5.8	55 59.4	+2.71	+17 16 11.74	+ 9.703	+0.00342	−0.015
B.....5126	6.0	56 31.0	+1.89	+45 31 34.38	+ 9.736	+0.00237	−0.022
B.....5127	5.4	56 37.1	+2.20	+36 47 44.53	+ 9.777	+0.00276	+0.011
A.....6490	6.0	56 37.8	+2.90	+ 8 18 35	+ 9.77	+0.004	.....
B.....5130	6.2	56 52.3	+1.59	+51 48 31.21	+ 9.788	+0.00199	+0.003
G.....5210	6.5	57 21.3	+0.76	+63 17 17.81	+ 9.825	+0.00092	.....
B.....5132	4.9	57 23.6	+2.47	+27 30 15.32	+ 9.831	+0.00310	+0.006
B.....5133	6.0	57 55.9	+2.54	+24 33 00.36	+ 9.860	+0.00319	−0.006
A.....6500	6.4	57 56.8	+2.20	+36 50 52	+ 9.87	+0.003	.....
B.....5134	5.5	58 12.3	+2.54	+24 41 07.19	+ 9.946	+0.00319	+0.059
B.....5137	5.3	58 48.8	+1.70	+49 51 13.28	+ 9.931	+0.00211	−0.002
Green...5428	6.5	58 55.3	−0.14	+70 07 01.52	+ 9.943	−0.00022	.....
A.....6506	6.2	59 14.1	+2.69	+18 14 55	+ 9.96	+0.003	.....
B.....5139	5.6	59 22.9	+2.75	+15 46 41.15	+ 9.968	+0.00343	−0.008
A.E. τ Aquilae	5.6	59 44.6	+2.93	+ 7 01 25.05	+10.033	+0.00366	+0.021
B.....5142	6.0	59 45.0	+3.09	− 0 57 39.38	+ 9.885	+0.00386	−0.119
B.....5144	5.9	19 59 55.4	+2.46	+29 39 21.75	+ 9.489	+0.00314	−0.527
B.....5146	5.9	20 00 03.6	+2.69	+16 49 32.85	+ 9.614	+0.00333	−0.413
Green...9854	5.4	00 31.6	+0.64	+64 34 07.57	+10.044	+0.00077	−0.022
B.....5150	5.9	01 04.4	+2.35	+31 57 46.50	+10.092	+0.00292	−0.012
B.....5151	5.2	01 10.0	+2.66	+19 43 57.08	+10.191	+0.00331	+0.080
Green...9856	6.7	01 20.5	+0.67	+64 22 47.55	+10.124	+0.00082	−0.002
A.....6523	6.3	01 47.3	+1.79	+47 58 24	+10.16	+0.002	.....
A.....6524	6.4	01 52.3	+2.17	+38 13 04	+10.17	+0.003	.....
Green...2709	6.4	02 08.8	−1.63	+76 13 49.50	+10.118	−0.00210	−0.070
Green...7488	4.7	02 25.0	+0.28	+67 37 00.61	+10.242	+0.00032	+0.034
A.....6526	6.2	02 40.5	+1.63	+51 34 51	+10.28	+0.002	+0.05
B.....5157	5.7	03 01.2	+2.23	+35 43 26.34	+ 9.812	+0.00272	−0.438
B.....5156	5.1	03 01.3	+2.58	+23 21 15.79	+10.248	+0.00319	−0.003
G.....5257	6.7	03 11.4	+2.15	+38 50 16.65	+10.266	+0.00265	.....
B.....5161	6.4	03 18.8	+1.37	+56 04 50.55	+10.351	+0.00166	+0.078
B.....5159	6.5	03 23.0	+3.10	− 0 56 16.09	+10.210	+0.00384	−0.069
B.....5162	6.5	03 36.9	+0.76	+63 37 51.41	+10.341	+0.00091	+0.046
B.....5163	5.9	03 51.7	+1.58	+52 53 57.11	+10.567	+0.00196	+0.252
A.....6535	6.5	04 00.3	+2.74	+16 24 09	+10.32	+0.003	.....
B.....5165	5.7	04 07.1	+0.96	+61 44 02.28	+10.406	+0.00118	+0.072
A.....6538	6.4	04 14.8	+2.30	+34 09 41	+10.35	+0.003	.....
Green...7489	6.6	04 30.5	+0.27	+67 46 04.84	+10.348	+0.00029	−0.018
G.....5262	7.0	04 37.3	+1.71	+49 58 05.30	+10.374	+0.00209	.....
G.....5273	7.0	05 36.6	+2.13	+39 32 02.56	+10.448	+0.00261	.....
Green...3913	6.9	05 43.4	−0.81	+73 38 55.80	+10.483	−0.00105	+0.027
B.....5169	7.0	05 58.3	+2.65	+20 38 49.43	+10.568	+0.00326	+0.096
B.....5170	5.0	20 06 05.0	+2.23	+36 34 26.73	+10.489	+0.00272	+0.009

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		h m s	s	° ′ ″	″	″	″
G.....5278	6.9	20 06 09.3	+1.70	+50 19 09.84	+10.488	+0.00207	.....
Green....8232	6.9	06 15.3	+0.51	+66 02 44.00	+10.496	+0.00059	.....
B.J.....756	3.1	06 39.7	+3.10	− 1 05 20.47	+10.529	+0.00380	+0.005
B.....5173	5.6	06 48.0	+2.50	+26 38 11.64	+10.527	+0.00306	−0.007
A.....6549	6.5	07 05.7	+2.65	+20 51 56	+10.56	+0.003	.....
Green...1692	6.6	07 07.6	−3.02	+79 25 17.32	+10.520	−0.00379	−0.042
G.....5289	6.6	07 16.4	+1.40	+55 45 40.08	+10.572	+0.00170	.....
A.....6552	6.5	07 59.7	+3.06	+ 0 35 52	+10.63	+0.004	.....
B.....5177	5.9	08 02.3	+2.51	+26 32 23.66	+10.607	+0.00306	−0.019
G.....5295	6.3	08 05.2	+2.50	+26 37 38.75	+10.632	+0.00305	.....
B.....5178	6.0	08 14.2	+2.51	+26 12 33.89	+10.625	+0.00307	−0.016
B.....5179	5.7	08 35.0	+3.10	− 1 16 46.52	+10.642	+0.00377	−0.024
G.....5309	6.9	08 36.4	+2.12	+40 03 37.16	+10.671	+0.00257	.....
Green...6777	7.0	09 01.9	+0.23	+68 19 57.28	+10.702	+0.00024	.....
B.....5183	6.5	10 01.5	+1.67	+51 11 31.88	+10.748	+0.00201	−0.024
B.....5184	5.9	10 06.6	+0.99	+61 48 20.91	+10.859	+0.00120	+0.080
B.....5182	5.0	10 06.7	+2.78	+14 55 21.83	+10.830	+0.00337	+0.051
B.....5186	4.9	10 28.3	+1.89	+46 32 34.30	+10.797	+0.00227	−0.009
B.....5185	5.4	10 32.6	+2.46	+28 25 17.53	+10.786	+0.00298	−0.025
G.....5334	6.8	10 32.7	+0.29	+68 00 06.11	+10.814	+0.00031	.....
G.....5328	6.5	10 41.0	+2.02	+43 06 19.37	+10.825	+0.00243	.....
G.....5327	7.0	10 42.6	+2.25	+36 19 52.61	+10.826	+0.00271	.....
B.J.....757	4.3	10 47.9	+1.89	+46 28 04.51	+10.831	+0.00227	+0.001
B.....5188	5.0	11 09.8	+2.25	+36 31 48.15	+10.924	+0.00272	+0.068
G.....5338	6.9	11 14.7	+1.48	+54 51 29.48	+10.865	+0.00176	.....
Gr.....1292	7.0	11 17.4	+1.60	+52 50 49.47	+11.036	+0.00191	+0.168
G.....5336	7.0	11 17.7	+2.24	+36 28 37.78	+10.869	+0.00270	.....
B.J.....758	4.3	11 18.4	+1.40	+56 17 31.60	+10.952	+0.00168	+0.085
B.....5190	4.9	11 27.0	+2.54	+25 18 59.89	+10.876	+0.00307	−0.002
B.....5192	5.5	11 37.0	+2.59	+23 13 59.47	+10.876	+0.00313	−0.013
B.....5194	6.2	11 48.5	+1.11	+60 21 54.12	+10.961	+0.00132	+0.057
B.....5193	6.0	11 54.0	+2.33	+33 27 21.33	+10.786	+0.00281	−0.124
B.J.....759	4.3	11 56.2	−1.96	+77 26 26.73	+10.940	−0.00243	+0.027
B.....5195	4.8	12 02.3	+2.48	+27 32 15.25	+10.927	+0.00299	+0.006
B.....5196	6.3	12 22.5	+2.64	+21 19 18.98	+10.915	+0.00318	−0.031
B.....5200	4.2	12 41.4	+1.85	+47 26 14.39	+10.970	+0.00222	+0.002
G.....5350	6.5	12 47.3	+2.18	+38 37 16.63	+10.979	+0.00261	.....
B.J.....760	5.7	12 56.0	+2.57	+24 23 35.96	+10.967	+0.00309	−0.019
B.....5203	6.1	13 05.6	+1.94	+45 18 11.31	+10.940	+0.00232	−0.058
B.....5205	5.7	13 43.1	+2.13	+40 05 09.39	+11.032	+0.00255	−0.012
A.....6584	6.4	13 50.3	+2.46	+28 52 01	+11.06	+0.003	.....
G.....5369	6.9	14 10.5	+2.16	+39 18 48.78	+11.080	+0.00258	.....
A.....6586	6.5	14 24.3	+2.06	+42 26 31	+11.10	+0.002	.....
B.....5208	5.1	14 28.1	+2.21	+37 45 09.07	+11.087	+0.00264	−0.011
B.....5210	6.2	14 55.7	+2.13	+40 27 03.03	+11.120	+0.00253	−0.011
G.....5380	6.3	15 04.1	+3.10	− 1 21 45.15	+11.144	+0.00371	.....
B.....5211	5.8	15 06.3	+2.25	+36 43 03.72	+11.174	+0.00268	+0.029
B.....5213	5.3	15 11.7	+2.30	+34 42 03.35	+11.145	+0.00275	−0.007
G.....5384	6.5	15 15.7	+2.82	+12 56 04.12	+11.159	+0.00337	.....
G.....5394	6.8	20 15 40.9	+2.18	+38 43 17.56	+11.189	+0.00259	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
A.....6597	6.3	20 15 47.1	+2.81	+13 15 52	+11.19	+0.003	.....
A.....6600	6.4	16 09.5	+2.79	+14 17 04	+11.22	+0.003	.....
B.....5218	6.2	16 11.4	+1.48	+55 06 55.32	+11.204	+0.00175	−0.020
A.....6601	6.1	16 16.0	+2.72	+17 30 35	+11.23	+0.003	.....
Green...8236	6.1	16 38.5	+0.60	+66 33 50.74	+11.543	+0.00077	+0.287
B.....5220	6.5	16 59.5	+2.17	+39 07 08.04	+11.262	+0.00257	−0.020
G.....5404	6.1	17 04.4	+1.91	+46 33 09.01	+11.290	+0.00225	.....
B.....5225	5.8	18 06.7	+1.01	+61 58 17.21	+11.393	+0.00116	+0.030
A.....6610	6.3	18 07.3	+1.60	+53 18 35	+11.37	+0.002	.....
B.....5224	5.7	18 11.2	+2.58	+24 09 30.27	+11.355	+0.00305	−0.013
A.....6612	6.2	18 40.3	+2.79	+14 15 44	+11.40	+0.003	.....
B.....5226	5.5	18 43.1	+2.97	+ 5 03 16.95	+11.361	+0.00351	−0.045
B.J.....765	2.3	18 59.9	+2.15	+39 58 05.38	+11.426	+0.00253	0.000
A.....6614	6.3	19 00.0	+2.41	+30 58 37	+11.43	+0.003	.....
B.....5230	5.9	19 09.1	+1.96	+45 30 19.08	+11.469	+0.00230	+0.032
B.....5231	6.3	19 33.7	+2.13	+40 44 15.24	+11.413	+0.00250	−0.053
Green...1377	6.8	19 36.3	−3.31	+80 15 00.91	+11.472	−0.00400	.....
G.....5421	7.0	19 40.7	+2.19	+38 55 15.89	+11.478	+0.00257	.....
Green...6779	6.0	19 42.3	+0.28	+68 35 32.72	+11.515	+0.00030	+0.036
G.....5423	5.8	19 49.5	+2.07	+42 41 33.33	+11.520	+0.00242	+0.032
A.....6624	5.8	19 54.9	+0.86	+63 41 26	+11.50	+0.001	.....
B.....5233	6.4	20 02.4	+3.06	+ 0 46 35.70	+11.508	+0.00360	+0.007
A.....6622	6.5	20 07.2	+3.05	+ 1 04 38	+11.51	+0.004	.....
B.....5235	4.7	20 15.9	+2.39	+31 53 56.55	+11.515	+0.00282	−0.002
B.....5236	6.0	20 22.3	+2.24	+37 11 06.98	+11.521	+0.00263	−0.003
G.....5430	6.5	20 41.8	+1.55	+54 22 55.81	+11.551	+0.00180	.....
G.....5429	6.3	21 00.9	+3.13	− 3 05 34.64	+11.574	+0.00368	.....
A.....6629	6.5	21 24.4	+2.89	+ 9 45 49	+11.60	+0.003	.....
B.....5238	5.9	21 41.8	+2.65	+21 06 56.54	+11.603	+0.00310	−0.016
A.....6631	6.5	21 48.5	+2.81	+13 37 04	+11.63	+0.003	.....
A.....6634	6.5	22 16.5	+2.74	+17 01 14	+11.66	+0.003	.....
G.....5437	6.9	22 22.8	+1.51	+55 08 59.56	+11.672	+0.00174	.....
B.....5242	7.0	22 47.4	+3.11	− 2 23 53.08	+11.631	+0.00363	−0.066
G.....5438	6.7	22 49.4	+2.16	+40 06 22.28	+11.702	+0.00251	.....
G.....5449	7.0	23 12.6	+1.56	+54 23 20.52	+11.730	+0.00179	.....
G.....5452	6.4	23 13.2	+1.25	+59 18 20.39	+11.731	+0.00143	.....
B.....5245	6.2	23 42.2	+3.14	− 3 39 20.59	+11.742	+0.00366	−0.020
A.....6639	6.3	23 44.7	+2.92	+ 8 08 19	+11.76	+0.003	.....
B.....5250	6.7	24 13.1	+1.45	+56 20 29.67	+11.805	+0.00167	+0.006
B.....5249	5.8	24 14.2	+2.22	+38 08 38.97	+11.729	+0.00257	−0.071
B.....5251	5.9	24 17.3	+1.83	+49 05 03.99	+11.860	+0.00212	+0.057
B.....5254	5.1	24 56.8	+3.14	− 3 11 07.72	+11.829	+0.00364	−0.021
A.E. 41 Cygni	4.1	25 43.1	+2.45	+30 04 04.10	+11.902	+0.00283	−0.004
B.....5258	6.1	25 54.4	+2.29	+36 09 13.36	+11.909	+0.00264	−0.008
B.....5257	6.1	25 59.4	+2.87	+10 35 38.39	+11.928	+0.00331	+0.005
Green...9074	6.6	26 47.3	+0.73	+65 27 21.49	+11.982	+0.00080	.....
A.....6652	6.4	26 56.5	+2.68	+20 18 03	+11.99	+0.003	.....
G.....5481	6.6	27 01.2	+1.99	+45 37 19.97	+12.158	+0.00227	+0.160
B.....5264	6.0	27 12.3	+1.50	+55 45 57.50	+12.024	+0.00170	+0.016
B.....5265	5.1	20 27 16.3	+1.86	+48 38 54.93	+12.017	+0.00212	+0.004

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....5267	6.5	20 27 34.1	+2.28	+36 37 55.09	+12.021	+0.00261	−0.013
B.J.....767	4.1	28 04.4	+1.01	+62 41 28.91	+12.055	+0.00114	−0.014
B.....5269	6.8	28 06.2	+1.85	+48 54 33.79	+12.066	+0.00210	−0.005
B.....5271	5.6	28 32.2	+1.85	+48 54 57.81	+12.065	+0.00210	−0.036
G.....5495	6.0	28 46.7	+1.71	+52 00 08.20	+12.122	+0.00193	.....
B.J.....768	3.9	28 54.8	+2.87	+10 59 48.52	+12.103	+0.00327	−0.025
B.....5276	6.5	29 34.6	+1.47	+56 28 25.72	+12.170	+0.00165	−0.004
G.....5498	6.5	29 41.0	+2.12	+41 34 46.53	+12.635	+0.00240	+0.45
B.....5275	5.5	29 41.6	+2.84	+12 43 05.92	+12.208	+0.00323	+0.026
G.....5499	6.5	29 44.3	+2.09	+42 53 02.67	+12.188	+0.00237	.....
G.....5508	6.8	30 14.2	+1.23	+60 07 03.65	+12.223	+0.00137	.....
B.....5279	5.0	30 24.1	+2.33	+34 56 31.31	+12.217	+0.00264	−0.014
A.E. Gr.3241	6.4	30 24.2	−0.24	+72 13 36.51	+12.213	−0.00032	−0.025
G.....5509	6.5	30 36.0	+2.14	+41 27 54.81	+12.157	+0.00241	−0.090
G.....5510	7.0	30 37.5	+2.02	+44 51 59.10	+12.250	+0.00228	.....
B.....5283	5.8	30 58.1	+1.97	+46 23 04.14	+12.267	+0.00222	−0.003
G.....5519	6.6	31 00.0	+1.59	+54 29 33.71	+12.276	+0.00178	.....
Green...9080	6.8	31 02.7	+0.80	+65 05 26.36	+12.279	+0.00087	.....
B.....5282	4.7	31 06.0	+2.80	+14 21 47.15	+12.284	+0.00318	+0.004
G.....5521	6.4	31 21.4	+2.16	+40 47 15.27	+12.300	+0.00244	.....
B.....5284	5.3	32 02.5	+3.13	− 2 51 44.07	+12.337	+0.00354	−0.008
G.....5529	6.7	32 05.3	+2.14	+41 34 41.57	+12.351	+0.00240	.....
G.....5532	6.5	32 13.1	+1.75	+51 32 35.70	+12.360	+0.00195	.....
Green...5441	6.7	32 14.3	+0.14	+70 13 24.08	+12.335	+0.00011	−0.026
B.....5287	6.6	32 16.9	+2.57	+25 34 11.25	+12.363	+0.00290	+0.002
Green...1114	6.9	32 33.0	−3.64	+81 07 44.46	+12.396	−0.00421	+0.014
A.....6684	6.0	32 41.5	+3.08	− 0 12 58	+12.40	+0.003	.....
B.J.....770	5.3	32 42.4	−0.75	+74 38 46.70	+12.379	−0.00091	−0.012
B.....5289	5.8	33 14.3	+2.56	+26 08 53.31	+12.412	+0.00288	−0.015
B.J.....771	3.5	33 19.7	+2.81	+14 16 53.45	+12.397	+0.00317	−0.036
Green....889	6.8	33 30.4	−5.31	+82 52 43.71	+12.454	−0.00612	+0.005
B.....5292	5.5	33 30.8	+2.87	+11 03 46.23	+12.427	+0.00323	−0.018
B.....5294	4.5	33 41.4	+3.10	− 1 25 12.69	+12.433	+0.00348	−0.025
A.....6691	6.0	33 48.5	+2.74	+17 57 04	+12.53	+0.003	+0.06
B.....5295	6.6	33 52.2	+2.44	+31 15 27.07	+12.461	+0.00273	−0.009
B.....5296	6.8	33 53.3	+2.43	+31 12 27.31	+12.425	+0.00272	−0.046
Green...1115	5.6	33 55.7	−3.61	+81 06 54.98	+12.471	−0.00415	−0.006
A.....6693	6.3	34 00.4	+2.26	+38 00 55	+12.49	+0.003	.....
B.....5299	6.1	34 29.1	+2.83	+12 59 54.17	+12.494	+0.00317	−0.018
B.....5301	4.8	34 30.1	+2.68	+20 53 04.82	+12.512	+0.00300	−0.001
B.....5300	6.6	34 32.3	+3.12	− 2 43 47.65	+12.532	+0.00350	+0.016
B.....5303	5.1	34 36.6	+2.61	+23 47 58.56	+12.509	+0.00292	−0.011
A.....6700	6.1	34 38.9	+2.62	+23 21 51	+12.53	+0.003	.....
G.....5548	6.6	34 39.3	+1.70	+52 39 29.26	+12.527	+0.00189	.....
Green...1380	6.1	34 42.1	−3.33	+80 46 37.98	+12.738	−0.00380	+0.208
B.J.....772	5.1	34 45.5	+2.91	+ 9 46 07.21	+12.549	+0.00328	+0.018
B.....5305	5.5	34 48.2	+3.08	+ 0 10 09.97	+12.519	+0.00345	−0.015
Gr.....1328	5.9	34 54.5	+2.78	+15 31 17.55	+12.539	+0.00311	−0.006
Green...6106	6.9	35 02.6	+0.31	+69 22 02.74	+12.485	+0.00030	−0.068
A.....6710	6.4	20 35 10.7	+2.66	+21 29 57	+12.56	+0.003	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....5309	6.0	20 35 17.2	+2.47	+30 01 05.63	+12.488	+0.00275	−0.079
B.J.....774	3.7	35 27.5	+2.79	+15 35 38.41	+12.572	+0.00311	−0.006
B.....5313	6.2	36 15.7	+2.19	+40 15 38.23	+12.619	+0.00243	−0.014
G.....5556	6.4	36 20.7	+2.14	+41 56 07.07	+12.402	+0.00236	−0.240
B.....5316	6.8	36 21.0	+2.02	+45 20 53.41	+12.633	+0.00224	−0.006
G.....5560	6.6	36 40.5	+1.55	+55 41 15.46	+12.664	+0.00170	.....
A.....6720	6.3	36 52.2	+2.49	+29 29 03	+12.68	+0.003	.....
A.....6721	6.2	36 54.6	+2.10	+43 08 28	+12.68	+0.002	.....
B.....5317	6.4	37 03.3	+2.81	+14 15 43.22	+12.681	+0.00311	−0.006
B.....5319	5.9	37 23.9	+2.43	+31 59 11.72	+12.692	+0.00268	−0.018
A.....6725	6.5	37 50.2	+2.76	+17 11 53	+12.80	+0.003	+0.06
Green....694	6.2	38 08.9	−5.70	+83 18 52.47	+12.749	−0.00646	−0.015
B.J.....777	1.3	38 21.8	+2.04	+44 57 29.87	+12.775	+0.00224	−0.001
B.....5321	6.2	38 23.2	+1.28	+60 10 46.21	+12.963	+0.00138	+0.186
B.....5322	5.8	38 41.4	+2.17	+41 23 39.18	+12.807	+0.00238	+0.009
B.J.....778	4.2	39 15.4	+2.80	+14 45 04.16	+12.788	+0.00307	−0.048
B.....5325	5.5	39 26.2	+1.85	+50 00 59.01	+12.847	+0.00202	0.000
Green...1699	6.7	39 34.3	−2.27	+79 06 43.22	+12.890	−0.00255	+0.030
A.....6738	6.4	40 44.6	+1.29	+60 16 38	+12.93	+0.001	.....
G.....5579	6.7	40 57.6	+1.51	+56 47 18.43	+12.953	+0.00163	.....
B.....5330	5.2	40 58.8	+2.60	+24 56 52.78	+12.768	+0.00283	−0.182
G.....5580	6.1	41 03.8	+1.62	+54 57 57.81	+12.959	+0.00174	.....
G.....5578	6.8	41 20.9	+2.75	+17 45 44.77	+12.979	+0.00300	.....
Green...9085	6.9	41 38.5	+0.79	+66 00 02.71	+12.999	+0.00082	.....
B.....5331	4.4	41 56.8	+2.48	+30 23 26.03	+13.038	+0.00269	+0.023
A.....6743	6.1	42 02.0	+1.56	+56 09 40	+13.03	+0.002	.....
Green...8251	5.6	42 03.8	+0.76	+66 19 48.24	+13.046	+0.00079	+0.020
G.....5587	6.9	42 19.0	+2.02	+46 01 36.05	+13.044	+0.00218	.....
A.....6744	6.3	42 22.8	+3.12	− 2 48 59	+13.04	+0.003	.....
B.....5334	5.4	42 28.2	+2.78	+15 47 58.00	+12.856	+0.00302	−0.194
A.E. γ Delph.	4.5	42 29.0	+2.78	+15 47 58.13	+12.855	+0.00301	−0.204
B.J.....780	2.4	42 34.2	+2.43	+33 37 57.66	+13.384	+0.00267	+0.327
B.J.....782	4.5	43 07.1	+1.49	+57 15 23.18	+12.859	+0.00158	−0.234
B.....5343	5.7	43 20.9	+2.97	+ 5 40 37.93	+13.113	+0.00322	+0.005
B.J.....783	3.5	43 27.7	+1.23	+61 29 20.19	+13.934	+0.00131	+0.818
B.....5345	(5.7)	43 35.2	+2.39	+34 02 34.66	+13.134	+0.00259	+0.010
G.....5597	6.8	43 36.9	+2.02	+46 12 04.77	+13.128	+0.00217	.....
G.....5601	6.4	43 44.6	+1.74	+52 40 02.48	+13.039	+0.00186	−0.100
B.J.....784	4.6	43 54.1	+2.34	+36 09 34.43	+13.145	+0.00252	0.000
Green...6109	6.6	44 00.6	+0.38	+69 25 24.27	+13.127	+0.00036	−0.029
G.....5605	6.6	44 15.5	+2.06	+45 14 55.33	+13.171	+0.00220	.....
A.....6763	6.5	44 39.7	+3.09	− 0 53 48	+13.20	+0.003	.....
G.....5611	6.7	44 50.1	+1.46	+58 05 04.95	+13.210	+0.00154	.....
B.....5355	5.9	44 51.5	+1.98	+47 29 58.78	+13.194	+0.00212	−0.014
G.....5614	6.4	45 11.7	+1.79	+52 04 42.35	+13.123	+0.00191	−0.110
Gr.....1339	6.0	45 20.4	+2.86	+12 12 28.91	+13.344	+0.00307	+0.100
B.....5359	6.3	45 23.5	+2.94	+ 7 31 44.12	+13.249	+0.00316	+0.006
A.....6770	6.3	45 30.5	+2.98	+ 5 12 34	+13.25	+0.003	.....
B.....5361	5.2	45 52.3	+2.04	+45 46 47.18	+13.271	+0.00218	−0.004
B.....5362	6.7	20 45 59.8	+1.81	+51 34 33.86	+13.293	+0.00193	+0.011

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
G.....5619	6.7	20 46 35.1	+1.70	+53 53 47.17	+13.429	+0.00180	+0.104
A.....6778	6.4	46 52.0	+2.03	+46 19 30	+13.34	+0.002	.....
B.....5365	5.1	46 53.1	+2.13	+43 43 11.21	+13.469	+0.00228	+0.128
G.....5625	6.2	47 08.7	+1.45	+58 24 46.57	+13.362	+0.00152	.....
Green...7508	6.9	47 28.0	+0.65	+67 41 39.81	+13.381	+0.00064	.....
B.....5370	(6.0)	47 39.0	+2.55	+27 54 45.28	+13.378	+0.00271	−0.013
G.....5629	6.4	47 42.7	+1.06	+63 42 22.00	+13.398	+0.00109	.....
B.....5373	4.8	48 16.5	+2.57	+26 45 34.04	+13.360	+0.00272	−0.071
B.J. 76 Drac.	6.0	49 09.6	−4.13	+82 11 55.46	+13.515	−0.00449	+0.027
A.....6792	6.5	49 20.6	+2.52	+29 18 27	+13.51	+0.003	.....
G.....5643	6.6	49 49.6	+1.68	+54 42 37.53	+13.535	+0.00175	.....
B.....5375	4.8	50 03.8	+2.12	+44 02 45.92	+13.553	+0.00223	+0.006
G.....5645	6.5	50 09.5	+2.18	+42 04 07.80	+13.557	+0.00229	.....
B.....5376	5.7	50 10.0	+2.10	+44 50 25.26	+13.551	+0.00220	−0.003
B.....5378	5.9	50 15.1	+2.43	+33 05 42.43	+13.601	+0.00256	+0.041
G.....5649	7.0	50 16.8	+1.48	+58 18 52.66	+13.565	+0.00153	.....
A.....6798	6.5	50 29.2	+3.10	− 1 43 00	+13.58	+0.003	.....
B.J.....786	5.3	50 43.4	+2.56	+27 42 53.51	+13.591	+0.00268	+0.001
B.....5382	6.2	51 10.3	+3.01	+ 4 11 17.38	+13.621	+0.00316	+0.002
B.....5384	5.6	51 20.9	+2.86	+12 13 25.55	+13.642	+0.00300	+0.012
B.....5385	5.4	51 21.0	+2.84	+13 22 39.08	+13.611	+0.00297	−0.019
G.....5661	6.9	51 26.7	+1.62	+56 01 12.98	+13.639	+0.00167	.....
G.....5660	7.0	51 34.1	+2.06	+45 53 15.16	+13.647	+0.00215	.....
A.....6804	6.4	51 35.7	+3.14	− 3 54 25	+13.65	+0.003	.....
AE220 Dr.Heis	5.6	51 42.1	−2.61	+80 12 55.02	+13.627	−0.00286	−0.030
A.....6806	6.2	52 34.3	+3.07	+ 0 07 10	+13.59	+0.003	−0.12
B.....5389	5.9	52 47.5	+2.03	+47 04 20.12	+13.717	+0.00210	−0.005
G.....5667	7.0	52 56.8	+2.16	+43 04 41.38	+13.736	+0.00224	.....
G.....5670	6.9	53 24.3	+2.12	+44 34 41.27	+13.765	+0.00218	.....
A.....6812	6.1	53 29.2	+1.98	+48 50 57	+13.77	+0.002	0.00
B.....5392	5.9	53 34.1	+1.90	+50 22 56.95	+13.754	+0.00196	−0.018
B.J.....788	3.9	53 49.0	+2.24	+40 49 12.65	+13.770	+0.00231	−0.017
B.....5394	6.3	53 52.6	+1.61	+56 32 26.53	+13.797	+0.00164	+0.006
B.....5395	5.6	54 05.8	+2.89	+10 29 28.33	+13.752	+0.00298	−0.053
G.....5675	7.0	54 10.2	+2.28	+39 18 51.73	+13.814	+0.00235	.....
B.....5397	5.6	54 14.9	+2.68	+21 58 38.33	+13.810	+0.00277	−0.005
B.....5399	5.5	54 34.6	+3.00	+ 3 56 52.23	+13.691	+0.00309	−0.144
B.....5401	5.9	55 06.1	+2.15	+44 07 14.35	+13.936	+0.00221	+0.068
A.....6824	6.4	55 11.4	+2.22	+41 35 25	+13.88	+0.002	.....
G.....5691	6.7	55 16.4	+1.69	+55 08 16.48	+13.883	+0.00172	.....
B.....5405	6.0	55 37.0	+1.92	+50 06 43.83	+13.917	+0.00196	+0.016
G.....5688	6.1	55 38.0	+2.95	+ 7 09 52.01	+13.906	+0.00304	.....
G.....5692	6.6	55 39.5	+2.79	+16 28 23.45	+13.908	+0.00287	.....
Green...3091	6.1	55 48.8	−0.66	+75 34 38.89	+13.941	−0.00075	+0.024
G.....5698	6.5	56 05.5	+2.21	+41 58 23.41	+13.934	+0.00226	.....
G.....5700	6.5	56 14.8	+2.31	+38 28 17.96	+13.944	+0.00236	.....
B.....5409	5.9	56 20.8	+2.74	+18 58 44.35	+13.880	+0.00280	−0.067
B.....5410	4.9	56 45.9	+2.04	+47 10 09.16	+13.976	+0.00208	+0.003
G.....5702	6.4	56 58.5	+1.67	+55 35 19.36	+13.990	+0.00169	.....
Green...3092	6.9	20 57 08.2	−0.57	+75 22 10.33	+14.006	−0.00066	+0.006

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....5412	5.9	20 57 12.3	+1.48	+59 05 11.19	+14.005	+0.00149	+0.004
A.....6841	6.1	57 37.9	+2.39	+35 40 21	+14.03	+0.002	.....
B.....5413	7.0	57 46.3	+2.96	+ 6 49 31.74	+14.025	+0.00301	−0.011
B.....5414	5.5	58 02.4	+2.09	+45 48 06.71	+14.054	+0.00212	+0.003
A.....6844	6.3	58 21.2	+3.09	− 1 16 49	+14.08	+0.003	.....
A.....6846	6.4	58 47.0	+2.83	+14 22 27	+14.10	+0.003	.....
B.....5416	6.7	58 53.8	+2.30	+39 09 12.67	+14.100	+0.00232	−0.006
G.....5715	6.7	59 11.3	+2.14	+44 26 07.15	+14.128	+0.00216	.....
G.....5722	6.4	59 28.3	+1.63	+56 42 58.67	+14.346	+0.00162	.....
B.....5420	6.4	59 35.2	+2.33	+38 18 04.04	+14.141	+0.00235	−0.009
G.....5719	7.0	59 39.7	+2.55	+28 44 10.93	+14.158	+0.00258	.....
B.....5421	6.0	20 59 40.3	+1.66	+56 18 50.03	+14.155	+0.00166	0.000
B.....5422	5.9	21 00 05.8	+2.99	+ 5 08 41.32	+14.181	+0.00302	+0.001
A.....5855	6.5	00 09.0	+3.03	+ 2 35 03	+14.19	+0.003	.....
G.....5723	6.5	00 11.1	+3.04	+ 1 54 49.76	+14.190	+0.00307	.....
B.....5425	6.7	00 29.9	+2.25	+41 16 18.42	+14.155	+0.00225	−0.051
G.....5727	6.7	00 29.9	+1.95	+49 59 34.58	+14.209	+0.00194	.....
A.....6860	6.5	00 36.7	+2.08	+46 30 28	+14.22	+0.002	.....
B.....5428	6.1	00 59.1	+2.97	+ 5 36 06.92	+14.102	+0.00298	−0.134
A.....6864	6.1	01 02.5	+1.83	+52 55 37	+14.25	+0.002	.....
B.J.....792	3.9	01 39.4	+2.18	+43 34 06.02	+14.274	+0.00218	−0.003
A.....6869	6.3	02 28.6	+2.61	+26 33 49	+14.34	+0.003	.....
B.....5432	6.0	02 43.6	+2.51	+30 49 24.11	+14.345	+0.00250	+0.003
A.....6871	6.5	02 43.9	+3.09	− 1 07 41	+14.35	+0.003	.....
B.J.....793	5.4	02 51.7	+2.69	+38 18 22.99	+17.601	+0.00300	+3.250
B.....5434	6.1	02 53.2	+2.69	+38 18 08.14	+17.431	+0.00326	+3.079
A.....6876	6.5	03 19.6	+2.82	+15 17 53	+14.29	+0.003	−0.09
B.....5436	4.8	03 30.1	+2.07	+47 17 10.32	+14.381	+0.00204	−0.008
A.....6878	6.3	04 01.6	+2.97	+ 6 37 29	+14.43	+0.003	.....
A.....6882	6.5	04 38.2	+3.08	− 0 35 59	+14.46	+0.003	.....
B.....5442	6.0	04 49.7	+2.54	+29 50 29.40	+14.454	+0.00251	−0.016
Green...4891	6.0	05 51.3	+0.37	+71 04 15.68	+14.420	+0.00031	−0.116
B.....5443	4.7	05 57.9	+2.92	+ 9 46 06.46	+14.378	+0.00287	−0.161
B.....5444	6.3	06 08.9	+2.92	+ 9 40 52.98	+14.567	+0.00286	+0.017
Green...7515	6.9	06 28.7	+0.81	+67 53 19.63	+14.573	+0.00075	.....
B.J.....795	6.0	07 19.0	−1.14	+77 45 41.67	+14.656	−0.00119	+0.036
B.....5447	5.8	07 28.6	+1.85	+53 11 43.02	+14.627	+0.00179	−0.003
G.....5770	6.4	07 33.5	+1.29	+62 55 41.01	+14.638	+0.00122	.....
Green...1388	6.9	07 41.1	−2.56	+80 47 49.84	+14.645	−0.00261	.....
G.....5776	7.0	08 52.5	+1.85	+53 22 34.67	+14.717	+0.00177	.....
B.J.....797	3.1	09 06.3	+2.55	+29 51 26.34	+14.668	+0.00247	−0.058
B.J.....798	5.8	09 30.8	+1.53	+59 36 58.19	+14.749	+0.00145	−0.002
A.....6904	6.4	09 49.3	+2.41	+36 15 41	+14.77	+0.002	.....
A.....6905	6.5	09 59.9	+3.08	− 0 16 49	+14.78	+0.003	.....
Green...3493	7.0	10 03.8	−0.26	+74 51 32.61	+14.777	−0.00032	−0.010
B.....5455	4.6	10 05.8	+2.92	+ 9 38 30.00	+14.482	+0.00281	−0.303
A.....6910	6.3	10 19.4	+2.56	+29 31 41	+14.80	+0.002	.....
B.J.....799	3.8	11 11.9	+2.39	+37 39 38.98	+15.285	+0.00230	+0.435
B.J.....800	3.9	11 19.5	+3.00	+ 4 52 30.92	+14.770	+0.00288	−0.087
Green..10113	6.4	21 11 51.6	+1.23	+64 01 58.94	+14.892	+0.00114	.....

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		h m s	s	° ′ ″	″	″	″
A.....6917	6.4	21 12 00.2	+3.11	− 1 58 59	+14.90	+0.003	.....
G.....5792	6.3	12 01.5	+2.28	+41 38 53.27	+15.040	+0.00216	+0.138
Green...6117	6.8	12 48.3	+0.67	+69 39 13.31	+14.949	+0.00059	.....
G.....5797	6.9	12 57.2	+2.22	+43 51 41.91	+14.957	+0.00209	.....
Green...9916	6.9	12 57.5	+1.22	+64 22 31.62	+14.956	+0.00112	.....
A.....6923	6.4	13 04.6	+2.28	+41 52 34	+14.96	+0.002	.....
B.....5468	5.9	13 27.8	+3.15	− 4 53 52.16	+15.001	+0.00299	+0.018
Green...2001	7.0	13 36.0	−1.32	+78 36 07.70	+14.997	−0.00135	+0.002
A.E. σ Cygni.	4.3	13 52.8	+2.35	+39 01 02.00	+15.009	+0.00222	−0.006
G.....5801	6.0	13 58.9	+2.27	+42 18 20.73	+15.017	+0.00212	.....
B.....5471	4.4	14 13.0	+2.47	+34 31 05.91	+15.005	+0.00232	−0.021
A.....6931	6.3	14 13.0	+1.87	+53 37 08	+15.03	+0.002	.....
A.....6933	6.2	14 30.4	+2.90	+10 49 24	+15.06	+0.003	.....
B.....5472	6.3	14 32.8	+1.79	+55 25 10.20	+15.057	+0.00167	+0.011
B.....5474	5.0	15 05.7	+2.23	+43 33 59.81	+15.055	+0.00208	−0.023
G.....5807	6.8	15 26.6	+2.32	+40 39 37.54	+15.100	+0.00216	.....
A.....6940	6.2	15 46.8	+2.39	+37 51 26	+15.12	+0.002	.....
B.....5476	6.2	16 21.2	+3.15	− 4 56 33.39	+15.158	+0.00294	+0.008
B.....5478	5.8	16 22.9	+2.06	+49 07 44.63	+15.147	+0.00191	−0.004
B.J.....803	2.5	16 25.9	+1.43	+62 12 14.38	+15.203	+0.00133	+0.049
B.....5479	6.2	16 37.7	+2.97	+ 6 58 21.50	+15.152	+0.00277	−0.013
Green...2723	6.3	16 42.0	−0.60	+76 38 00.62	+15.172	−0.00063	−0.001
B.....5481	5.9	16 46.3	+1.66	+58 14 32.24	+15.162	+0.00152	−0.011
G.....5815	6.1	16 47.0	+1.93	+52 40 35.89	+15.179	+0.00177	.....
B.....5482	6.0	17 00.1	+2.71	+23 28 34.47	+15.050	+0.00252	−0.136
Green...1394	6.0	17 07.7	−2.34	+80 51 13.91	+15.197	−0.00229	.....
Green...9924	5.2	17 30.3	+1.25	+64 29 24.12	+15.235	+0.00112	+0.016
A.....6950	6.3	17 34.5	+2.54	+32 13 47	+15.23	+0.002	+0.01
B.J.....804	4.2	17 55.4	+2.77	+19 25 08.25	+15.300	+0.00257	+0.061
G.....5823	6.5	18 02.7	+3.03	+ 2 32 03.37	+15.249	+0.00281	.....
G.....5826	6.8	18 05.1	+2.16	+46 20 45.41	+15.252	+0.00198	.....
A.....6959	6.2	18 15.0	+1.55	+60 22 28	+15.26	+0.001	.....
B.....5491	5.2	18 25.6	+2.98	+ 6 25 33.05	+15.274	+0.00275	+0.006
A.....6962	6.3	18 49.7	+2.58	+29 55 29	+15.29	+0.002	.....
B.....5495	6.0	18 52.8	+2.08	+49 00 10.11	+15.356	+0.00190	+0.063
B.....5498	5.8	19 55.5	+2.70	+23 53 13.13	+15.370	+0.00247	+0.018
G.....5837	6.4	20 00.8	+2.92	+ 9 47 10.23	+15.361	+0.00268	.....
A.....6971	6.5	20 06.3	+2.67	+24 55 31	+15.36	+0.002	.....
B.....5500	6.7	20 10.2	+3.13	− 3 47 04.41	+15.319	+0.00286	−0.047
B.....5504	5.9	20 34.2	+2.66	+25 47 12.14	+15.381	+0.00242	−0.007
G.....5841	7.0	20 34.8	+1.33	+63 50 24.51	+15.393	+0.00118	.....
B.....5503	5.8	20 35.4	+3.13	− 3 56 35.38	+15.319	+0.00285	−0.070
A.....6978	(6.4)	21 15.0	+3.07	+ 0 08 42	+15.43	+0.003	.....
Green...4898	7.0	21 15.8	+0.50	+71 40 24.02	+15.431	+0.00040	.....
G.....5851	6.9	21 46.8	+2.10	+48 56 06.71	+15.460	+0.00188	.....
A.....6980	6.4	21 51.9	+3.07	+ 0 43 07	+15.35	+0.003	−0.12
B.....5511	5.6	22 01.3	+2.20	+46 19 26.66	+15.514	+0.00200	+0.045
B.....5512	6.1	22 06.3	+2.45	+36 16 41.33	+15.463	+0.00221	−0.011
A.....6984	6.4	22 15.6	+2.78	+18 59 06	+15.50	+0.003	+0.01
Green...6126	7.0	21 22 30.2	+0.85	+69 08 47.15	+15.500	+0.00072	.....

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		h m s	s	° ′ ″	″	″	″
Green...2724	6.7	21 23 12.5	−0.50	+76 42 11.32	+15.512	−0.00052	−0.027
Green...2725	6.9	23 22.1	−0.38	+76 09 48.28	+15.683	−0.00042	+0.135
B.....5517	5.3	23 39.9	+2.13	+48 26 36.39	+15.591	+0.00190	+0.031
B.....5516	5.3	23 41.1	+2.44	+36 43 30.69	+15.565	+0.00218	+0.004
B.....5515	5.5	23 42.0	+2.64	+27 12 58.42	+15.584	+0.00236	+0.022
B.....5518	6.1	23 46.9	+1.98	+52 30 26.29	+15.578	+0.00175	+0.011
A.....6993	6.5	23 58.7	+2.96	+ 7 48 14	+15.58	+0.003	.....
B.....5519	5.9	24 17.4	+2.56	+31 49 50.13	+15.657	+0.00228	+0.062
A.....6995	6.5	24 47.2	+2.81	+17 30 45	+15.63	+0.003	.....
A.....6997	6.0	24 52.9	+2.74	+21 47 07	+15.63	+0.002	.....
G.....5868	6.6	24 56.2	+1.66	+59 21 29.39	+15.634	+0.00145	.....
A.....6998	6.5	25 06.2	+2.98	+ 6 11 14	+15.65	+0.003	.....
G.....5872	6.4	25 43.3	+2.25	+44 31 44.01	+15.677	+0.00198	.....
B.....5522	4.7	25 52.2	+2.72	+23 14 37.58	+15.677	+0.00240	−0.004
Green...8287	5.4	26 02.0	+1.16	+66 24 58.15	+15.652	+0.00099	−0.042
G.....5876	6.6	26 02.9	+1.88	+55 01 26.36	+15.695	+0.00164	.....
B.J.....807	5.4	26 07.6	+2.21	+46 08 36.03	+15.798	+0.00195	+0.103
G.....5877	6.8	26 17.5	+2.21	+46 01 53.33	+15.708	+0.00194	.....
G.....5879	5.9	26 48.4	+2.90	+11 44 29.27	+15.736	+0.00255	.....
B.....5531	6.2	27 20.4	+1.99	+52 33 41.01	+15.768	+0.00174	+0.007
B.J.....809	3.1	27 30.2	+0.79	+70 09 55.79	+15.777	+0.00065	+0.007
Green...1396	6.2	27 30.6	−1.65	+80 07 56.91	+15.770	−0.00154	−0.004
Green...8288	6.9	27 36.4	+1.16	+66 39 17.74	+15.781	+0.00098	.....
G.....5888	6.7	28 15.1	+2.03	+51 47 47.86	+15.815	+0.00175	.....
G.....5891	6.2	28 26.0	+2.01	+52 13 20.63	+15.824	+0.00174	.....
G.....5890	6.8	28 28.2	+2.16	+48 11 15.32	+15.826	+0.00186	.....
B.....5535	5.7	28 31.0	+1.65	+60 03 44.38	+15.830	+0.00141	+0.006
G.....5897	7.0	28 55.7	+1.81	+57 06 16.95	+15.851	+0.00155	.....
G.....5896	6.5	29 02.2	+2.16	+48 02 45.93	+15.856	+0.00186	.....
B.....5539	5.8	29 45.8	+2.12	+49 34 41.03	+15.914	+0.00182	+0.023
Green...5466	7.0	29 50.1	+0.79	+70 25 30.49	+15.896	+0.00063	−0.002
A.....7025	6.2	29 55.6	+2.25	+45 27 16	+15.90	+0.002	.....
B.....5542	6.1	30 35.7	+3.13	− 4 23 04.77	+15.949	+0.00270	+0.014
B.....5543	4.1	30 35.7	+2.25	+45 11 36.67	+15.840	+0.00193	−0.095
B.....5546	5.1	31 05.9	+2.45	+38 07 48.20	+16.053	+0.00210	+0.091
B.....5548	6.3	31 21.3	+2.07	+51 17 49.12	+15.975	+0.00176	−0.001
G.....5912	6.9	31 40.1	+2.31	+43 18 03.53	+15.996	+0.00197	.....
Green...8291	7.0	32 35.0	+1.24	+66 19 29.73	+16.008	+0.00102	−0.036
B.....5550	6.3	32 56.5	+3.08	− 0 47 39.52	+16.041	+0.00262	−0.017
B.....5552	6.3	33 14.6	+2.99	+ 6 12 48.65	+16.070	+0.00254	−0.005
B.J.....811	5.1	33 20.4	+2.40	+40 00 31.81	+16.091	+0.00203	+0.012
B.....5555	5.5	33 32.7	+2.81	+18 54 47.63	+16.105	+0.00237	+0.014
A.....7045	6.4	34 00.7	+2.30	+44 17 32	+16.12	+0.002	.....
B.....5556	5.9	34 01.5	+3.01	+ 5 21 54.38	+16.142	+0.00254	+0.026
B.....5557	7.0	34 09.3	+2.43	+38 54 41.95	+16.118	+0.00204	−0.004
G.....5938	5.0	34 38.9	+2.00	+53 38 11.17	+16.152	+0.00166	.....
A.....7047	6.4	34 41.8	+2.70	+25 02 33	+16.15	+0.002	.....
B.....5558	6.0	34 49.5	+2.80	+19 51 31.72	+16.160	+0.00235	+0.003
Gr.....1393	5.3	34 59.3	+3.04	+ 1 50 18.29	+16.098	+0.00255	−0.072
G.....5943	6.8	21 35 14.9	+2.15	+49 23 20.80	+16.183	+0.00178	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
Gr.....1395	4.9	21 35 30.4	+1.61	+61 40 32.14	+16.184	+0.00132	−0.012
Green...9954	7.0	35 58.3	+1.39	+64 58 01.22	+16.220	+0.00112	.....
B.J.....813	6.1	36 10.1	+1.86	+57 04 54.34	+16.228	+0.00153	+0.002
G.....5950	6.5	36 13.8	+2.43	+39 06 23.31	+16.233	+0.00201	.....
G.....5956	6.8	36 25.2	+2.32	+44 01 26.33	+16.243	+0.00191	.....
B.....5567	5.4	36 39.1	+2.35	+42 51 53.46	+16.265	+0.00195	+0.013
B.....5569	6.0	37 34.8	+3.06	+ 0 52 29.50	+16.284	+0.00253	−0.014
G.....5968	6.2	37 44.3	+1.98	+54 27 44.84	+16.311	+0.00161	.....
B.....5572	5.6	37 45.4	+3.00	+ 5 16 10.97	+16.305	+0.00247	−0.003
G.....5971	6.5	37 52.9	+1.76	+59 20 33.51	+16.319	+0.00142	.....
B.....5573	6.2	37 57.0	+2.41	+40 23 46.13	+16.267	+0.00198	−0.051
A.....7068	6.3	38 09.1	+2.93	+10 24 49	+16.33	+0.002	.....
G.....5972	6.2	38 13.2	+2.53	+35 05 57.93	+16.336	+0.00207	.....
A.....7070	6.2	38 41.9	+2.29	+45 21 18	+16.36	+0.002	.....
B.....5579	5.8	38 45.5	+2.41	+40 39 56.86	+16.363	+0.00197	+0.004
B.....5580	4.8	38 53.9	+2.13	+50 46 42.70	+16.364	+0.00173	−0.001
G.....5982	6.3	38 57.1	+2.09	+51 52 50.19	+16.372	+0.00169	.....
G.....5983	6.2	39 22.2	+2.18	+49 11 18.97	+16.393	+0.00176	.....
B.....5583	5.6	39 29.4	+2.41	+40 44 35.29	+16.382	+0.00195	−0.014
G.....5987	6.8	39 35.3	+1.87	+57 19 27.88	+16.404	+0.00150	.....
B.....5585	5.8	39 42.3	+2.48	+37 52 16.19	+16.406	+0.00201	0.000
B.J.....815	2.3	39 45.9	+2.95	+ 9 27 42.95	+16.408	+0.00239	0.000
A.....7082	6.2	40 03.1	+1.80	+58 51 30	+16.42	+0.001	.....
B.....5587	4.9	40 07.0	+2.68	+28 20 08.74	+16.187	+0.00218	−0.240
B.....5588	5.9	40 07.1	+2.68	+28 20 07.18	+16.201	+0.00218	−0.226
G.....5990	6.1	40 10.9	+2.89	+14 21 40.71	+16.331	+0.00235	−0.103
B.....5590	4.5	40 15.0	+2.84	+16 56 11.57	+16.410	+0.00230	−0.023
B.J.....816	4.1	40 34.1	+2.72	+25 13 51.44	+16.459	+0.00219	+0.010
B.J.....817	4.8	40 36.4	+0.89	+70 53 48.76	+16.549	+0.00070	+0.097
B.....5593	(4.5)	40 45.2	+1.83	+58 22 01.14	+16.457	+0.00146	−0.002
G.....5995	6.9	41 00.8	+2.27	+46 26 53.32	+16.476	+0.00182	.....
B.....5598	6.8	41 51.7	+2.72	+25 10 06.03	+16.515	+0.00217	+0.001
A.....7090	6.5	41 55.3	+2.53	+35 26 31	+16.52	+0.002	.....
B.....5599	5.6	41 55.9	+2.76	+22 31 59.73	+16.503	+0.00220	−0.014
Green...4903	5.4	41 58.6	+0.74	+71 54 26.68	+16.468	+0.00054	−0.056
G.....6000	6.2	42 02.2	+2.11	+51 51 08.88	+16.527	+0.00167	.....
B.....5602	6.6	42 18.0	+2.73	+25 08 45.17	+16.549	+0.00218	+0.013
G.....6004	6.0	42 24.8	+1.65	+62 02 43.84	+16.546	+0.00129	.....
B.....5605	5.6	42 40.2	+3.04	+ 2 16 09.85	+16.550	+0.00243	−0.003
G.....6003	6.2	42 47.7	+2.85	+16 46 40.80	+16.565	+0.00227	.....
B.....5608	4.5	42 51.1	+1.73	+60 42 18.81	+16.563	+0.00135	0.000
B.J.....821	4.3	43 28.0	+2.21	+48 53 33.85	+16.589	+0.00174	−0.004
A.....7106	6.4	44 20.9	+2.53	+36 09 45	+16.64	+0.002	.....
A.....7108	6.2	44 45.0	+2.49	+38 13 48	+16.66	+0.002	.....
B.....5614	5.8	44 46.0	+1.77	+60 16 29.06	+16.659	+0.00137	+0.002
A.....7111	6.5	45 14.5	+2.80	+20 02 35	+16.68	+0.002	.....
Green...6139	6.4	45 25.9	+1.06	+69 43 59.52	+16.663	+0.00079	−0.031
B.....5616	5.5	45 51.7	+2.85	+16 52 00.44	+16.647	+0.00223	−0.062
B.....5617	5.3	45 51.8	+2.65	+29 45 17.00	+16.683	+0.00206	−0.027
Green...9965	7.0	21 45 59.2	+1.52	+64 45 04.20	+16.716	+0.00115	−0.003

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.....5619	6.7	21 46 40.9	+1.76	+60 51 11.09	+16.732	+0.00134	−0.017
G.....6028	5.9	46 51.0	+2.12	+52 16 34.92	+16.762	+0.00163	.....
Green...8301	6.5	47 03.1	+1.40	+66 22 24.41	+16.704	+0.00104	−0.067
B.....5621	5.9	47 20.7	+2.82	+19 24 15.00	+16.795	+0.00217	+0.014
G.....6031	6.5	47 21.5	+2.48	+39 06 51.90	+16.786	+0.00190	.....
A.....7121	6.5	47 40.6	+3.12	− 3 35 49	+16.80	+0.002	.....
B.....5625	5.8	48 28.8	+2.68	+28 22 18.14	+16.761	+0.00204	−0.074
G.....6038	7.0	48 31.2	+2.27	+48 00 49.90	+16.842	+0.00172	.....
B.....5628	6.9	48 57.7	+2.03	+55 22 06.00	+16.874	+0.00154	+0.017
B.J.....823	5.2	48 58.0	+2.73	+25 30 04.74	+16.859	+0.00208	+0.001
B.....5629	6.1	48 58.2	+2.03	+55 22 24.36	+16.857	+0.00153	−0.001
G.....6046	6.7	49 20.1	+2.07	+54 15 31.45	+16.880	+0.00156	.....
Green...9161	7.0	49 22.3	+1.50	+65 19 48.91	+16.863	+0.00111	−0.019
B.....5630	5.8	49 23.2	+2.82	+19 14 36.58	+16.888	+0.00215	+0.010
Green...9969	7.0	49 27.5	+1.57	+64 28 35.49	+16.870	+0.00116	−0.016
A.....7131	6.3	49 28.0	+2.99	+ 6 26 23	+16.88	+0.002	.....
B.....5631	6.1	49 28.4	+3.13	− 4 41 55.09	+16.791	+0.00239	−0.091
Green....703	7.0	49 51.2	−3.29	+83 37 06.25	+16.925	−0.00266	+0.020
G.....6051	6.2	49 55.1	+3.12	− 3 43 31.42	+16.908	+0.00237	.....
A.....7136	6.5	50 03.7	+2.82	+19 17 36	+16.91	+0.002	0.00
B.....5633	6.9	50 10.5	+2.10	+53 34 21.86	+16.902	+0.00157	−0.013
A.E. 79 Drac.	6.6	51 44.2	+0.72	+73 16 34.96	+17.003	+0.00050	+0.029
Green...4910	7.0	51 48.2	+0.95	+71 33 51.12	+16.972	+0.00066	−0.022
B.....5639	6.1	51 51.6	+2.01	+56 11 04.94	+16.990	+0.00149	−0.004
A.....7143	6.3	52 11.4	+2.80	+20 48 41	+17.01	+0.002	.....
G.....6067	6.0	52 21.9	+2.14	+52 48 55.70	+17.022	+0.00158	.....
B.....5641	5.7	52 33.0	+2.93	+11 38 54.49	+17.005	+0.00217	−0.021
Green...7550	7.0	52 38.2	+1.38	+67 19 35.21	+17.034	+0.00099	.....
A.....7145	6.3	52 38.9	+1.79	+61 06 53	+17.03	+0.001	.....
B.....5642	6.0	53 09.4	+1.58	+64 53 35.46	+17.056	+0.00114	+0.003
Green...1709	6.8	53 13.1	−0.58	+79 07 32.63	+17.074	−0.00051	+0.014
B.....5650	5.4	54 06.8	+1.69	+63 11 48.62	+17.105	+0.00122	+0.008
A.....7152	6.3	54 13.4	+3.13	− 4 47 43	+16.85	+0.002	−0.25
Green...9175	6.8	55 06.0	+1.54	+65 42 32.68	+17.168	+0.00109	+0.021
B.....5653	6.1	55 38.1	+3.00	+ 6 17 07.92	+17.162	+0.00218	−0.004
Green...1711	6.7	55 47.2	−0.78	+79 52 49.61	+17.170	−0.00066	−0.007
G.....6087	6.5	56 14.2	+1.77	+62 15 58.35	+17.198	+0.00125	.....
B.....5656	6.8	56 22.1	+2.01	+57 13 37.68	+17.184	+0.00144	−0.015
B.....5655	5.9	56 28.7	+3.07	+ 0 10 20.44	+17.198	+0.00222	−0.006
B.....5657	6.0	56 41.2	+2.98	+ 7 49 27.00	+17.209	+0.00215	−0.005
B.J.....826	5.8	56 42.3	+2.92	+12 41 18.23	+17.160	+0.00211	−0.054
Green...3506	6.6	56 59.9	+0.59	+74 33 57.51	+17.207	+0.00037	−0.025
G.....6097	6.8	57 57.6	+1.79	+62 03 16.71	+17.275	+0.00125	.....
B.....5661	5.2	57 58.1	+0.87	+72 45 05.01	+17.111	+0.00056	−0.160
B.....5664	5.9	58 32.5	+2.19	+52 26 52.60	+17.300	+0.00155	+0.003
B.....5663	4.7	58 39.6	+3.10	− 2 35 24.77	+17.290	+0.00221	−0.011
B.....5665	6.0	58 54.1	+2.94	+10 57 05.10	+17.303	+0.00209	−0.009
B.....5667	5.6	59 03.0	+2.01	+57 33 56.75	+17.315	+0.00140	−0.004
B.....5669	5.7	21 59 18.7	+2.42	+44 12 55.42	+17.293	+0.00170	−0.037
B.....5671	5.5	22 00 09.7	+3.09	− 1 20 31.02	+17.326	+0.00217	−0.042

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		h m s	s	° ′ ″	″	″	″
Green...9181	6.7	22 00 25.2	+1.61	+65 37 40.62	+17.400	+0.00109	+0.017
G.....6114	6.8	00 27.4	+2.43	+43 54 30.85	+17.385	+0.00169	.....
A.....7176	6.5	00 35.8	+2.65	+32 30 19	+17.39	+0.002	.....
G.....6115	6.6	00 42.2	+2.90	+14 22 45.15	+17.396	+0.00203	.....
B.....5675	6.9	00 57.9	+1.95	+59 22 41.21	+17.412	+0.00134	+0.010
B.....5673	6.0	01 03.7	+2.75	+26 14 07.71	+17.436	+0.00191	+0.030
B.....5674	5.1	01 08.5	+3.03	+ 4 37 05.20	+17.502	+0.00212	+0.092
B.J.....827	2.9	01 09.7	+3.08	− 0 45 26.80	+17.404	+0.00215	−0.007
B.....5677	6.5	01 10.0	+1.73	+64 11 22.44	+17.501	+0.00120	+0.090
B.....5678	5.5	01 11.1	+1.79	+62 40 53.40	+17.455	+0.00123	+0.043
Green...9977	4.7	01 11.2	+1.74	+64 11 20.59	+17.481	+0.00121	+0.065
G.....6123	6.9	01 16.7	+1.95	+59 25 48.17	+17.421	+0.00133	.....
G.....6121	6.8	01 22.3	+2.37	+46 47 46.41	+17.425	+0.00164	.....
B.....5681	5.7	01 30.0	+2.72	+28 31 34.56	+17.409	+0.00188	−0.017
G.....6126	6.3	01 41.9	+2.38	+46 18 26.89	+17.439	+0.00164	.....
G.....6133	7.0	02 11.7	+2.42	+44 40 26.76	+17.460	+0.00166	.....
B.J.....830	5.7	02 16.3	+1.82	+62 20 46.72	+17.519	+0.00123	+0.060
A.....7188	6.4	02 19.4	+2.35	+47 47 36	+17.47	+0.002	.....
B.....5687	5.3	02 22.5	+1.85	+61 50 30.38	+17.463	+0.00125	−0.001
B.....5686	5.4	02 23.2	+2.43	+44 34 34.22	+17.447	+0.00167	−0.017
G.....6137	6.5	02 33.7	+2.42	+44 48 36.22	+17.475	+0.00166	.....
B.J.....831	3.9	02 49.2	+2.79	+24 54 18.55	+17.504	+0.00193	+0.022
B.....5691	6.0	03 11.4	+2.86	+19 02 05.73	+17.541	+0.00196	+0.043
A.....7197	6.5	03 11.7	+2.87	+17 33 44	+17.48	+0.002	−0.02
G.....6144	6.5	03 16.1	+2.26	+51 21 59.51	+17.506	+0.00153	.....
B.....5692	5.9	03 36.6	+2.82	+21 15 51.51	+17.441	+0.00192	−0.075
G.....6147	5.4	04 05.5	+2.22	+52 52 02.29	+17.541	+0.00149	.....
B.....5694	6.6	04 07.6	+2.02	+58 24 04.20	+17.515	+0.00135	−0.023
A.....7202	6.3	04 08.0	+2.77	+25 06 14	+17.55	+0.002	.....
A.....7209	6.4	04 46.7	+2.32	+49 21 23	+17.58	+0.002	.....
A.....7210	6.5	05 03.0	+2.42	+45 17 58	+17.58	+0.002	.....
B.J.....833	5.8	05 14.3	+2.66	+32 43 56.39	+17.520	+0.00178	−0.065
Green...5477	7.0	05 19.0	+1.29	+70 15 11.25	+17.592	+0.00083	.....
Green...4913	7.0	05 30.5	+1.13	+71 55 51.14	+17.625	+0.00071	+0.024
B.J.....834	3.6	05 39.6	+3.03	+ 5 45 16.96	+17.633	+0.00205	+0.031
B.....5702	6.4	05 40.3	+3.12	− 4 20 08.37	+17.547	+0.00210	−0.056
Gr.....1426	6.1	05 52.3	+3.13	− 4 42 35.61	+17.636	+0.00211	+0.020
B.J.....835	4.3	05 59.3	+2.66	+32 44 10.54	+17.598	+0.00177	−0.019
G.....6162	6.2	05 59.8	+2.91	+14 11 14.84	+17.621	+0.00195	.....
A.....7218	6.3	06 01.5	+2.86	+19 10 36	+17.53	+0.002	−0.09
A.....7219	6.0	06 12.6	+2.95	+11 11 00	+17.63	+0.002	.....
B.....5710	6.5	06 14.8	+2.83	+20 32 06.91	+17.614	+0.00189	−0.013
A.....7220	6.5	06 47.7	+2.71	+30 06 35	+17.66	+0.002	.....
B.....5711	6.3	07 30.5	+2.90	+15 35 48.04	+17.662	+0.00191	−0.017
B.....5713	5.5	07 39.9	+2.33	+50 22 42.00	+17.718	+0.00154	+0.032
B.J.....836	3.4	07 43.8	+2.08	+57 45 26.38	+17.694	+0.00135	+0.006
A.....7226	6.1	07 57.0	+2.79	+24 30 22	+17.70	+0.002	.....
B.J.....837	4.8	08 04.8	+1.16	+71 53 51.79	+17.710	+0.00072	+0.008
B.....5719	5.3	08 27.4	+2.04	+58 58 13.33	+17.712	+0.00132	−0.006
Green...4917	6.4	22 08 29.6	+1.18	+71 40 04.20	+17.685	+0.00073	−0.039

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		h m s	s	° ′ ″	″	″	″
B.....5721	5.5	22 08 33.8	+2.16	+56 23 29.42	+17.850	+0.00142	+0.127
Green...6157	6.2	08 35.5	+1.37	+69 41 15.99	+17.744	+0.00086	+0.015
B.....5724	5.6	08 48.8	+2.65	+34 09 38.12	+17.690	+0.00172	−0.043
G.....6186	6.6	08 50.2	+2.06	+58 38 15.69	+17.806	+0.00132	+0.068
G.....6188	7.0	09 02.9	+2.20	+54 39 10.52	+17.747	+0.00142	.....
B.....5727	5.7	09 03.2	+1.98	+60 18 49.81	+17.769	+0.00127	+0.026
B.....5730	6.2	09 31.1	+2.74	+28 09 43.49	+17.760	+0.00177	−0.002
A.....7241	5.8	09 34.2	+1.86	+62 50 47	+17.77	+0.002	.....
B.....5731	6.8	09 58.9	+2.88	+16 44 41.58	+17.693	+0.00185	−0.088
B.....5732	4.8	10 00.9	+2.57	+39 16 04.99	+17.787	+0.00165	+0.005
B.....5734	5.8	10 07.0	+2.46	+44 59 37.78	+17.779	+0.00159	−0.007
B.....5737	5.9	10 57.4	+2.52	+42 30 25.59	+17.797	+0.00160	−0.022
B.....5738	6.4	10 59.6	+1.88	+62 42 56.27	+17.823	+0.00118	+0.002
Green...4427	6.1	11 15.2	+1.10	+72 51 35.86	+17.826	+0.00066	−0.010
A.....7250	6.5	11 30.9	+2.99	+ 8 06 05	+17.85	+0.002	.....
B.....5742	4.2	11 43.2	+2.20	+56 35 40.09	+17.894	+0.00143	+0.044
A.....7253	6.1	11 55.6	+3.10	− 2 02 42	+17.86	+0.002	.....
B.....5746	4.3	12 02.7	+2.61	+37 18 00.28	+17.859	+0.00165	−0.004
A.....7262	6.5	12 21.1	+2.76	+27 21 19	+17.88	+0.002	.....
B.....5751	6.1	13 11.5	+2.16	+56 46 14.53	+17.906	+0.00135	−0.003
A.....7265	6.4	13 27.6	+3.08	− 0 41 09	+17.93	+0.002	.....
B.....5754	6.4	14 59.4	+2.63	+37 19 01.54	+18.039	+0.00162	+0.061
B.....5756	6.2	15 16.4	+1.95	+62 21 11.07	+18.013	+0.00119	+0.023
B.....5757	5.6	15 55.9	+3.02	+ 5 20 12.93	+18.020	+0.00185	+0.005
A.....7272	6.5	16 26.0	+2.99	+ 7 43 58	+18.04	+0.002	.....
B.J.....842	3.7	17 00.5	+3.10	− 1 50 28.36	+18.062	+0.00189	+0.007
B.J.....843	4.9	17 05.2	+2.95	+11 45 05.08	+18.067	+0.00179	+0.009
A.....7278	6.5	17 05.8	+2.37	+50 31 41	+18.06	+0.001	.....
B.....5763	4.9	17 09.9	+2.77	+27 52 36.36	+18.060	+0.00167	−0.002
Green...3109	6.6	17 15.8	+0.75	+76 02 08.73	+18.069	+0.00040	0.000
B.....5764	4.6	17 18.3	+2.47	+46 04 59.07	+18.067	+0.00149	0.000
A.....7282	6.5	17 25.1	+2.15	+57 57 21	+18.07	+0.001	.....
G.....6234	5.9	17 59.7	+2.56	+41 37 26.65	+18.098	+0.00153	.....
B.....5772	6.4	19 19.7	+2.89	+20 23 35.10	+18.124	+0.00172	−0.019
G.....6247	6.3	19 40.7	+2.21	+56 49 44.63	+18.161	+0.00129	.....
A.....7292	6.4	19 55.0	+2.66	+38 06 51	+18.31	+0.002	+0.13
B.....5775	7.0	19 57.3	+3.10	− 1 38 38.51	+18.201	+0.00183	+0.035
A.....7294	6.2	19 58.7	+2.01	+61 57 48	+18.17	+0.001	.....
B.J.....844	4.5	20 01.1	+2.35	+51 46 40.17	+17.978	+0.00138	−0.191
B.....5784	5.4	20 36.1	−4.27	+85 39 19.79	+18.239	−0.00266	+0.049
A.E.πAquarii.	4.6	20 40.8	+3.06	+ 0 55 13.31	+18.192	+0.00180	+0.003
B.....5779	4.6	20 51.9	+2.43	+49 01 11.02	+18.189	+0.00141	−0.011
B.....5787	7.0	20 57.4	−4.46	+85 46 10.72	+18.218	−0.00278	+0.015
A.....7299	6.4	21 20.0	+2.89	+17 59 09	+18.22	+0.002	.....
G.....6260	7.0	21 27.0	+2.39	+50 47 52.46	+18.226	+0.00138	.....
B.....5786	6.1	22 02.5	+3.05	+ 3 56 03.05	+18.286	+0.00178	+0.043
G.....6265	6.8	22 23.1	+2.32	+53 29 10.68	+18.261	+0.00132	0.000
Green...2360	6.5	22 56.6	+0.54	+77 47 08.77	+18.275	+0.0025	.....
B.....5790	5.0	23 18.2	+3.04	+ 4 14 38.11	+17.973	+0.00174	−0.316
A.....7306	6.5	22 23 29.7	+2.62	+39 21 04	+18.31	+0.001	.....

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
Green...1132	7.0	22 23 37.7	−0.53	+81 28 48.91	+18.376	−0.00039	+0.072
A.....7307	6.0	23 38.7	+2.74	+31 22 47	+18.31	+0.002	.....
Green...5488	5.7	23 41.1	+1.55	+70 18 43.92	+18.306	+0.00085	.....
Green...9991	5.7	24 11.4	+1.92	+64 40 22.93	+18.313	+0.00107	−0.012
B.....5793	4.5	24 11.8	+3.09	− 0 28 50.07	+18.336	+0.00175	+0.016
B.....5794	4.3	24 12.0	+3.09	− 0 28 52.43	+18.365	+0.00176	+0.045
B.....5797	5.9	24 38.5	+2.99	+ 8 40 08.31	+18.308	+0.00169	−0.028
B.....5798	6.0	24 57.1	+2.81	+26 18 09.48	+18.330	+0.00157	−0.018
A.....7319	6.5	25 19.5	+1.99	+63 37 33	+18.36	+0.001	.....
B.....5800	5.8	25 25.0	+3.03	+ 3 58 27.26	+18.225	+0.00169	−0.138
B.....5804	4.6	25 46.5	+2.49	+47 14 45.06	+18.365	+0.00137	−0.011
B.J.....847	(4.1)	25 49.6	+2.22	+57 57 15.38	+18.380	+0.00122	+0.002
G.....6292	6.5	25 50.7	+2.34	+53 47 05.57	+18.383	+0.00128	.....
B.....5806	5.6	25 54.7	+2.74	+32 06 41.93	+18.364	+0.00151	−0.016
Green...2019	5.8	26 02.7	+0.49	+78 19 37.09	+18.343	+0.00020	−0.046
Green...1406	6.8	26 08.7	0.00	+80 14 29.86	+18.421	−0.00008	+0.028
G.....6295	6.5	26 17.1	+2.39	+51 57 16.81	+18.398	+0.00131	.....
A.....7328	6.5	26 24.2	+2.46	+48 53 44	+18.40	+0.001	.....
B.....5810	4.5	26 36.0	+2.58	+42 39 42.31	+18.402	+0.00141	−0.002
Gr.....1452	6.3	26 39.2	+3.10	− 3 22 21.71	+18.407	+0.00171	−0.004
G.....6307	6.6	27 21.2	+2.12	+61 09 42.29	+18.435	+0.00114	.....
B.J.....848	3.8	27 34.9	+2.47	+49 49 10.23	+18.455	+0.00134	+0.016
B.....5814	6.5	28 14.4	+2.90	+19 45 56.70	+18.483	+0.00157	+0.022
A.....7335	6.5	28 22.9	+2.93	+15 23 57	+18.47	+0.002	.....
B.....5815	6.0	28 27.6	+2.65	+39 18 59.48	+18.459	+0.00142	−0.009
G.....6319	6.7	28 44.3	+2.37	+53 34 23.01	+18.482	+0.00126	.....
Green...2021	5.6	29 05.8	+0.56	+78 21 44.18	+18.467	+0.00024	−0.027
B.....5817	6.2	29 24.6	+3.09	− 2 02 15.98	+18.468	+0.00166	−0.033
G.....6323	6.6	29 36.7	+2.64	+40 21 16.26	+18.512	+0.00140	.....
B.....5821	5.9	30 11.0	+2.32	+56 09 32.77	+18.571	+0.00122	+0.045
Green...6177	6.0	30 26.3	+1.74	+69 26 50.37	+18.615	+0.00090	+0.076
A.....7346	(6.5)	30 39.0	+2.14	+61 18 46	+18.55	+0.001	.....
A.E.226B.Cep.	5.7	30 41.8	+1.07	+75 45 45.20	+18.543	+0.00051	−0.001
B.J.....850	3.9	30 43.9	+3.08	− 0 34 54.10	+18.489	+0.00163	−0.055
Green...6178	6.3	30 44.2	+1.70	+69 54 31.40	+18.575	+0.00087	+0.025
B.....5830	6.9	31 29.1	+2.89	+19 48 38.88	+18.451	+0.00151	−0.118
B.....5832	6.7	31 51.8	+2.66	+39 09 42.88	+18.571	+0.00137	−0.011
B.....5833	5.9	31 51.9	+2.66	+39 10 05.13	+18.567	+0.00137	−0.015
A.....7352	6.3	32 02.5	+2.72	+35 06 48	+18.59	+0.001	.....
B.....5834	6.5	32 08.9	+2.49	+49 36 16.26	+18.600	+0.00127	+0.009
A.....7354	6.5	32 38.0	+2.97	+12 06 38	+18.62	+0.002	.....
A.....7355	6.4	32 42.3	+2.72	+35 11 08	+18.61	+0.001	.....
N.A.κAquarii.	5.4	33 05.8	+3.11	− 4 41 32.90	+18.510	+0.00159	−0.113
B.J.....851	5.2	33 32.7	+1.48	+73 10 32.92	+18.659	+0.00074	+0.023
B.....5837	4.8	33 40.4	+2.46	+51 04 48.71	+18.539	+0.00123	−0.101
G.....6360	6.7	34 28.0	+2.11	+63 18 05.28	+18.699	+0.00104	+0.028
Gr.....1458	5.8	34 31.2	+2.90	+19 03 22.24	+18.579	+0.00146	−0.094
B.....5843	5.4	35 05.3	+2.35	+56 19 40.78	+18.664	+0.00117	−0.022
B.J.....852	4.9	35 13.3	+2.69	+38 34 53.67	+18.684	+0.00133	−0.006
Green...3516	6.1	22 35 17.3	+1.30	+74 54 12.95	+18.686	+0.00060	−0.011

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		h m s	s	° ′ ″	″	″	″
B.....5847	6.5	22 35 25.4	+2.90	+19 12 43.34	+18.678	+0.00145	−0.019
B.J.....853	5.3	35 27.4	+2.12	+63 06 59.08	+18.676	+0.00104	−0.022
A.....7369	6.3	35 29.9	+2.71	+37 07 25	+18.70	+0.001	.....
G.....6367	6.6	35 48.0	+2.50	+50 41 06.87	+18.768	+0.00123	+0.054
A.....7373	6.3	36 08.6	+3.11	− 4 01 21	+18.73	+0.002	.....
B.....5851	6.0	36 25.0	+2.97	+14 04 32.54	+18.862	+0.00147	+0.134
B.....5852	4.6	36 33.9	+2.62	+43 48 22.16	+18.741	+0.00128	+0.009
G.....6372	6.0	36 38.5	+2.43	+53 22 36.35	+18.740	+0.00118	.....
B.J.....855	3.3	36 58.4	+2.99	+10 21 40.50	+18.733	+0.00147	−0.013
G.....6375	6.5	37 18.3	+2.48	+51 17 17.30	+18.760	+0.00120	.....
A.....7382	6.5	37 18.7	+2.79	+30 29 45	+18.76	+0.001	.....
B.....5856	5.4	37 26.7	+2.68	+39 45 17.72	+18.752	+0.00129	−0.007
B.....5857	6.3	37 30.7	+2.96	+14 02 45.65	+18.737	+0.00144	−0.025
B.....5858	4.9	37 31.8	+2.81	+28 50 14.75	+18.727	+0.00136	−0.035
G.....6377	6.3	37 34.7	+2.68	+41 04 37.72	+18.835	+0.00129	+0.067
A.....7392	6.2	38 39.8	+2.45	+53 26 16	+18.80	+0.001	.....
B.J.....857	2.9	38 46.9	+2.81	+29 45 00.79	+18.768	+0.00134	−0.033
G.....6385	6.4	39 11.2	+2.58	+46 41 48.81	+18.818	+0.00122	.....
Green...1408	6.9	39 13.9	+0.20	+80 55 17.07	+18.824	+0.00002	+0.005
Green..10004	6.7	39 54.7	+2.10	+64 51 51.48	+18.840	+0.00097	.....
B.....5868	6.5	40 01.2	+2.70	+38 59 37.25	+18.824	+0.00126	−0.014
B.J.....858	5.4	40 04.5	+2.67	+41 20 48.01	+18.844	+0.00125	+0.005
G.....6395	6.5	40 05.5	+2.21	+62 11 56.55	+18.845	+0.00102	.....
G.....6398	7.0	40 48.3	+2.71	+38 43 42.37	+18.866	+0.00126	.....
G.....6400	6.9	41 03.9	+2.49	+52 02 38.31	+18.875	+0.00115	.....
Gr.....1463	6.5	41 05.5	+2.92	+18 53 30.65	+18.937	+0.00135	+0.062
G.....6401	6.7	41 30.8	+2.36	+57 40 37.88	+18.749	+0.00108	−0.139
B.....5876	6.0	42 10.5	+2.65	+44 04 16.34	+18.926	+0.00121	+0.025
Gr.....1464	4.3	42 11.7	+2.99	+11 42 39.64	+18.428	+0.00138	−0.479
B.J.....859	3.9	42 11.7	+2.89	+23 05 30.34	+18.892	+0.00132	−0.010
G.....6414	7.0	42 47.6	+2.46	+54 23 52.35	+18.924	+0.00110	.....
B.....5883	6.5	43 48.6	+2.38	+58 00 28.29	+18.954	+0.00106	+0.005
G.....6422	6.0	44 03.7	+2.75	+36 56 35.21	+18.961	+0.00122	.....
Green..10008	6.8	44 37.4	+2.16	+64 35 12.75	+18.967	+0.00094	−0.009
G.....6426	6.0	45 03.3	+2.48	+53 56 20.78	+18.989	+0.00108	.....
G.....6428	6.4	45 20.3	+2.25	+62 27 50.09	+18.997	+0.00098	.....
G.....6429	6.8	45 27.0	+2.55	+50 30 14.70	+18.854	+0.00111	−0.146
B.J.....862	3.6	45 39.5	+2.89	+24 07 34.01	+18.960	+0.00126	−0.041
B.....5887	5.6	46 03.3	+2.47	+55 25 30.63	+19.050	+0.00106	+0.038
B.....5890	6.1	46 18.1	+2.70	+41 28 35.86	+19.018	+0.00116	−0.001
G.....6434	6.8	46 18.3	+2.57	+50 11 59.79	+19.023	+0.00110	.....
Green...8343	7.0	46 24.3	+2.12	+66 04 38.23	+19.027	+0.00089	.....
B.J.....863	3.5	46 28.4	+2.13	+65 43 36.73	+18.901	+0.00090	−0.123
B.....5894	5.3	47 50.4	+3.04	+ 9 21 23.27	+19.104	+0.00131	+0.043
B.....5896	5.9	47 51.7	+2.33	+61 13 04.77	+19.103	+0.00098	+0.042
B.....5899	5.1	47 51.8	−0.13	+82 40 34.83	+19.116	−0.00013	+0.054
B.....5897	5.1	47 58.3	+2.70	+42 50 01.27	+19.081	+0.00114	+0.016
G.....6444	6.6	48 03.1	+2.28	+62 29 45.09	+19.071	+0.00094	.....
B.....5900	5.9	48 36.4	+2.95	+16 21 48.19	+19.059	+0.00123	−0.022
G.....6452	6.5	22 48 50.0	+2.65	+46 04 13.16	+19.092	+0.00110	.....

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		h m s	s	° ′ ″	″	″	″
G.....6453	6.9	22 48 58.3	+2.59	+49 56 02.33	+19.097	+0.00107	.....
G.....6454	6.7	49 04.5	+2.73	+39 41 20.62	+19.099	+0.00113	.....
A.....7442	6.0	49 28.2	+2.38	+59 37 21	+19.11	+0.001	.....
Green...7590	6.9	49 31.3	+2.10	+67 30 35.40	+19.110	+0.00085	.....
B.....5903	5.9	49 38.3	+2.68	+44 16 13.93	+19.109	+0.00109	0.000
G.....6464	6.1	49 59.2	+2.75	+39 53 49.64	+19.182	+0.00112	+0.059
Gr.....1475	6.5	50 09.4	+2.95	+16 27 45.17	+19.127	+0.00121	.....
B.....5908	6.3	50 23.2	+3.07	+ 0 35 06.12	+19.136	+0.00126	+0.007
B.....5910	6.0	50 41.8	+3.02	+ 8 20 08.19	+19.150	+0.00123	+0.014
A.....7455	6.1	50 51.3	+2.78	+36 35 48	+19.14	+0.001	.....
B.....5912	5.8	51 32.8	+2.79	+35 52 16.20	+19.173	+0.00111	+0.015
G.....6472	7.0	51 43.5	+2.70	+43 49 42.17	+19.169	+0.00107	.....
B.....5913	5.7	52 16.9	+2.73	+41 07 23.21	+19.171	+0.00108	−0.006
A.....7460	6.5	52 28.0	+3.10	− 3 43 36	+19.19	+0.001	.....
B.....5914	5.1	52 29.1	+2.62	+49 15 09.64	+19.170	+0.00103	−0.012
A.....7464	6.4	52 57.7	+3.05	+ 3 19 40	+19.20	+0.001	.....
B.....5917	5.7	53 02.6	+2.94	+20 17 09.25	+19.248	+0.00116	+0.051
B.....5918	5.2	53 05.7	+2.64	+48 12 10.55	+19.183	+0.00103	−0.015
Green....511	6.2	53 17.6	−1.19	+84 53 29.63	+19.301	−0.00058	+0.094
G.....6481	6.8	53 19.7	+2.72	+42 31 52.44	+19.208	+0.00106	.....
A.....7468	6.4	53 31.2	+2.76	+38 49 38	+19.21	+0.001	.....
Gr.....1479	6.2	53 37.4	+3.09	− 2 52 36.20	+19.216	+0.00120	.....
A.....7470	6.4	53 45.4	+3.09	− 1 53 30	+19.22	+0.001	.....
B.....5920	6.7	54 01.3	+3.04	+ 8 52 42.32	+19.070	+0.00119	−0.151
B.....5922	6.0	54 41.6	+3.00	+11 14 50.90	+19.197	+0.00115	−0.041
B.....5924	5.7	54 50.7	+3.07	+ 0 28 55.83	+19.176	+0.00118	−0.066
Green...4445	6.6	54 59.1	+1.87	+72 39 07.71	+19.205	+0.00068	−0.045
Green....712	5.0	55 10.0	−0.34	+83 51 52.75	+19.268	−0.00023	+0.014
G.....6490	6.4	55 16.2	+2.59	+52 10 15.65	+19.257	+0.00097	.....
G.....6492	6.6	55 27.6	+2.45	+59 19 56.16	+19.261	+0.00091	.....
Gr.....1481	6.4	56 01.0	+3.08	− 0 17 51.73	+19.294	+0.00115	+0.019
A.....7482	6.1	56 07.8	+3.06	+ 2 31 53	+19.28	+0.001	.....
B.....5931	5.4	56 17.4	+2.52	+56 27 44.62	+19.284	+0.00092	+0.008
G.....6497	6.6	56 29.8	+2.71	+44 53 29.97	+19.287	+0.00100	.....
A.....7488	6.4	57 42.3	+2.53	+56 37 19	+19.32	+0.001	.....
B.J.....869	3.5	57 46.7	+2.75	+41 50 31.31	+19.299	+0.00099	−0.013
G.....6511	6.3	58 05.0	+2.73	+44 05 21.24	+19.324	+0.00098	.....
B.....5936	5.2	58 27.6	+2.76	+42 16 24.43	+19.321	+0.00098	−0.007
G.....6516	6.3	58 38.0	+2.74	+43 34 27.63	+19.337	+0.00097	.....
G.....6517	7.0	58 41.0	+2.48	+59 22 05.80	+19.339	+0.00087	.....
G.....6524	6.8	59 02.8	+2.39	+62 51 22.33	+19.347	+0.00083	.....
N.A.βPiscium	4.6	59 17.8	+3.05	+ 3 20 07.23	+19.341	+0.00108	−0.006
B.J.....870	2.4	59 24.6	+2.90	+27 35 39.79	+19.487	+0.00103	+0.137
A.....7500	6.5	59 33.1	+2.51	+58 04 46	+19.36	+0.001	.....
G.....6529	7.0	59 40.0	+2.47	+59 57 38.26	+19.360	+0.00085	.....
Green...1412	6.7	22 59 42.7	+1.05	+80 17 48.57	+19.358	+0.00031	−0.003
B.....5943	5.6	23 00 07.0	+2.27	+66 43 26.32	+19.386	+0.00078	+0.020
B.....5942	4.8	00 08.4	+2.68	+49 33 45.05	+19.527	+0.00093	+0.161
B.J.....871	2.4	00 16.6	+2.99	+14 43 14.87	+19.328	+0.00104	−0.041
G.....6538	6.9	23 00 54.4	+2.41	+62 45 15.24	+19.388	+0.00081	.....

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		h m s	s	° ′ ″	″	″	″
G.....6540	6.7	23 01 10.5	+2.39	+63 36 17.27	+19.394	+0.00080	.....
A.....7509	6.4	01 49.3	+2.98	+18 01 46	+19.47	+0.001	+0.06
A.E.55Pegasi.	4.7	02 28.2	+3.02	+ 8 55 23.10	+19.405	+0.00101	−0.014
G.....6546	7.0	02 29.1	+2.43	+62 43 35.12	+19.423	+0.00080	.....
B.....5954	4.9	02 43.6	+2.92	+24 58 55.84	+19.386	+0.00097	−0.038
B.....5955	4.9	02 48.3	+2.53	+58 55 59.78	+19.431	+0.00082	+0.006
A.....7517	6.2	03 02.2	+2.96	+20 38 55	+19.37	+0.001	−0.06
G.....6548	7.0	03 10.7	+2.74	+45 34 51.53	+19.378	+0.00090	−0.060
G.....6549	5.8	03 10.7	+2.65	+52 19 45.60	+19.439	+0.00086	.....
G.....6551	6.4	03 22.0	+2.52	+59 14 25.57	+19.443	+0.00081	.....
Green...3129	6.8	03 29.3	+1.85	+75 05 40.62	+19.445	+0.00058	.....
B.....5957	5.6	03 32.2	+2.74	+45 54 03.11	+19.411	+0.00089	−0.030
B.....5958	6.0	03 39.9	+2.72	+48 48 18.88	+19.570	+0.00089	+0.126
G.....6555	7.0	04 02.9	+2.76	+44 04 28.47	+19.457	+0.00089	.....
B.....5959	5.7	04 04.3	+3.07	+ 1 38 15.55	+19.562	+0.00100	+0.110
Green...9230	6.8	04 07.0	+2.38	+65 07 47.44	+19.459	+0.00075	.....
G.....6556	6.6	04 07.1	+2.44	+63 08 46.83	+19.458	+0.00078	.....
A.....7527	6.5	04 17.6	+2.42	+63 44 08	+19.47	+0.001	.....
B.....5962	5.3	04 58.9	+3.03	+ 8 11 20.86	+19.473	+0.00097	+0.002
B.J.....874	4.5	05 01.9	+1.90	+74 54 03.03	+19.447	+0.00058	−0.025
B.....5967	5.4	05 29.5	+3.02	+ 9 20 01.39	+19.460	+0.00095	−0.022
G.....6563	6.8	05 38.0	+2.82	+38 58 51.48	+19.490	+0.00088	.....
Green..10021	6.6	05 38.2	+2.41	+64 43 24.41	+19.490	+0.00074	.....
B.....5969	5.8	05 52.9	+2.55	+58 50 40.61	+19.504	+0.00079	+0.014
B.....5971	6.0	06 14.2	+2.98	+17 06 22.84	+19.464	+0.00093	−0.033
B.....5972	6.1	06 17.5	+2.76	+43 03 38.11	+19.311	+0.00084	−0.188
Green...8362	6.7	06 22.2	+2.36	+66 45 12.76	+19.523	+0.00071	+0.018
A.E.59Pegasi.	5.2	07 11.5	+3.03	+ 8 13 52.51	+19.521	+0.00093	−0.006
G.....6577	7.0	07 18.4	+2.71	+50 16 56.01	+19.524	+0.00082	.....
B.....5974	6.5	07 27.0	+2.91	+26 21 39.18	+19.399	+0.00087	−0.122
G.....6580	7.0	08 17.3	+2.69	+51 44 26.64	+19.543	+0.00079	.....
B.....5975	4.6	08 25.4	+2.74	+48 54 51.69	+19.636	+0.00081	+0.096
A.....7547	6.0	08 54.8	+3.02	+10 34 31	+19.56	+0.001	.....
B.J.....875	5.8	08 56.7	+2.88	+56 40 16.56	+19.846	+0.00089	+0.295
A.....7549	6.5	09 31.4	+2.97	+19 08 39	+19.57	+0.001	.....
G.....6587	7.0	09 59.2	+2.91	+29 16 54.22	+19.576	+0.00083	.....
G.....6588	6.8	10 07.4	+2.73	+50 07 39.81	+19.579	+0.00078	.....
A.....7554	6.5	10 09.9	+2.95	+23 36 44	+19.57	+0.001	−0.01
Gr.....1491	5.6	10 56.1	+3.09	− 3 59 13.94	+19.597	+0.00087	+0.003
B.....5982	6.7	11 22.4	+2.93	+27 45 25.41	+19.593	+0.00081	−0.003
Green...3963	5.7	11 25.1	+2.12	+73 44 25.65	+19.598	+0.00058	−0.005
G.....6597	6.6	11 31.6	+2.95	+24 16 47.48	+19.625	+0.00082	+0.020
Green...5514	5.6	12 09.2	+2.30	+70 23 49.30	+19.617	+0.00062	+0.001
B.J.....878	3.7	12 30.0	+3.11	+ 2 47 25.17	+19.635	+0.00087	+0.018
B.....5989	5.8	12 35.9	+2.72	+52 43 40.50	+19.374	+0.00073	−0.244
B.....5990	6.8	13 02.5	+2.81	+44 40 26.12	+19.553	+0.00075	−0.074
B.....5993	5.0	13 34.1	+2.77	+48 31 23.84	+19.642	+0.00073	+0.006
Gr.....1497	6.3	13 42.4	+2.81	+44 59 50.19	+19.616	+0.00074	−0.027
B.....5996	6.1	14 07.0	+2.84	+41 16 55.08	+19.640	+0.00074	−0.006
Green...3534	6.4	23 14 08.3	+2.10	+74 48 26.45	+19.642	+0.00052	−0.009

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A.E.o Cephei.	4.9	23 14 55.5	+2.45	+67 37 08.31	+19.677	+0.00062	+0.017
A.....7580	6.5	15 05.9	+2.89	+34 18 04	+19.67	+0.001	.....
B.....6001	5.5	15 18.0	+2.79	+48 07 53.62	+19.723	+0.00070	+0.057
B.....6002	6.6	15 27.8	+2.81	+47 53 15.20	+19.700	+0.00071	+0.031
B.....6003	6.0	15 35.1	+2.85	+41 35 06.50	+19.679	+0.00071	+0.008
A.....7583	6.5	15 35.5	+3.11	− 4 24 30	+19.57	+0.001	−0.11
B.....6004	5.3	15 45.4	+3.06	+ 4 53 23.49	+19.611	+0.00077	−0.063
B.J.....880	4.5	16 10.8	+2.97	+23 14 51.06	+19.667	+0.00074	−0.013
A.....7589	6.4	16 18.4	+2.60	+61 28 40	+19.67	+0.001	−0.02
G.....6630	6.6	16 21.9	+2.64	+59 46 54.74	+19.689	+0.00064	.....
B.....6006	6.0	16 24.9	+2.93	+29 55 25.11	+19.617	+0.00073	−0.067
A.....7592	6.5	16 28.6	+2.83	+43 37 30	+19.69	+0.001	.....
B.....6008	6.0	16 32.4	+2.89	+37 41 26.29	+19.609	+0.00071	−0.078
A.....7594	6.4	16 38.4	+2.60	+61 43 14	+19.70	+0.001	.....
B.....6009	5.6	17 31.2	+2.92	+31 19 08.49	+19.682	+0.00070	−0.021
A.....7598	6.5	18 01.9	+2.96	+25 25 31	+19.72	+0.001	.....
B.....6011	6.5	18 11.5	+2.98	+20 20 06.93	+19.699	+0.00071	−0.014
B.....6013	6.9	18 17.7	+3.01	+20 03 55.31	+19.696	+0.00071	−0.019
B.....6016	5.8	18 31.3	+2.66	+59 38 23.23	+19.715	+0.00061	−0.003
B.....6015	5.3	18 32.2	+3.02	+11 49 13.05	+19.700	+0.00071	−0.019
A.....7604	6.4	18 54.7	+3.07	− 0 12 11	+19.73	+0.001	.....
B.....6020	6.9	19 21.9	+2.94	+32 02 10.87	+19.775	+0.00068	+0.043
G.....6644	6.5	19 49.9	+2.87	+41 07 07.23	+19.744	+0.00065	.....
B.....6023	5.7	20 26.3	+2.93	+31 53 25.11	+19.748	+0.00065	−0.001
G.....6649	7.0	20 47.7	+2.74	+55 36 42.48	+19.759	+0.00059	.....
B.J.....882	5.5	20 50.1	+2.65	+61 47 18.78	+19.744	+0.00057	−0.010
B.J.....881	4.4	20 53.1	+2.99	+22 54 30.49	+19.790	+0.00066	+0.035
G.....6653	7.0	21 24.6	+2.78	+52 29 06.89	+19.768	+0.00059	.....
G.....6658	7.0	22 08.7	+2.78	+52 40 19.76	+19.779	+0.00058	.....
G.....6660	6.9	22 17.8	+2.68	+60 35 30.16	+19.780	+0.00055	.....
B.J.....884	5.1	22 19.1	+3.08	+ 0 45 45.94	+19.683	+0.00065	−0.093
Green...5517	6.8	22 27.4	+2.48	+70 11 22.91	+19.821	+0.00051	+0.038
B.....6033	6.5	22 38.2	+3.07	+ 0 37 40.97	+19.748	+0.00064	−0.033
B.....6034	5.8	22 46.9	+2.88	+42 24 58.35	+19.796	+0.00059	+0.014
B.....6036	6.2	23 12.0	+2.98	+24 40 21.18	+19.741	+0.00061	−0.047
Green...9246	7.0	23 20.3	+2.61	+65 07 37.75	+19.705	+0.00052	−0.090
A.E. θ Piscium	4.4	23 24.1	+3.04	+ 5 53 04.48	+19.750	+0.00062	−0.043
Green...6197	5.6	23 27.8	+2.52	+69 51 51.80	+19.791	+0.00050	−0.006
Green...3969	7.0	24 06.7	+2.38	+73 37 23.75	+19.828	+0.00046	+0.022
Green....360	6.6	24 24.3	+0.15	+85 55 20.63	+19.841	−0.00005	+0.031
B.J.....885	4.7	24 36.1	+3.03	+12 15 49.89	+19.835	+0.00060	+0.028
G.....6671	6.5	24 38.1	+2.80	+53 10 14.41	+19.813	+0.00054	.....
Gr.....1507	6.6	24 49.8	+3.08	− 2 17 12.47	+19.824	+0.00060	+0.008
Green...3536	6.5	25 25.4	+2.33	+74 43 46.38	+19.813	+0.00042	−0.010
A.....7631	6.2	25 49.6	+2.84	+48 38 12	+19.83	+0.001	.....
B.....6046	5.0	25 52.2	+2.76	+58 03 09.87	+19.837	+0.00051	+0.013
A.....7633	6.3	26 15.8	+2.92	+38 09 55	+19.84	+0.001	.....
B.....6049	5.3	26 51.6	+2.94	+38 44 29.94	+19.755	+0.00054	−0.082
B.....6048	6.8	26 52.6	+3.10	− 4 34 45.32	+19.657	+0.00057	−0.179
Green...2383	7.0	23 27 11.9	+2.22	+77 23 51.23	+19.844	+0.00038	−0.002

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B.....6051	6.7	23 27 20.5	+3.08	− 1 34 58.96	+19.866	+0.00055	+0.023
G.....6686	6.5	27 29.0	+2.89	+43 34 31.11	+19.850	+0.00051	.....
N.A.B.A.C.8213	5.6	27 45.9	−0.23	+86 48 39.82	+19.867	−0.00010	+0.020
A.....7641	6.5	27 59.2	+2.99	+23 20 51	+19.86	+0.001	.....
Green...9255	6.6	28 08.3	+2.68	+65 14 31.40	+19.870	+0.00046	+0.012
G.....6691	7.0	28 19.2	+2.83	+53 11 21.76	+19.860	+0.00048	.....
Green...4950	6.6	28 39.6	+2.52	+71 30 15.36	+19.826	+0.00042	−0.038
B.....6058	5.8	28 57.5	+3.00	+22 00 06.13	+19.827	+0.00051	−0.035
A.....7647	6.4	29 21.3	+2.90	+44 33 38	+19.88	0.000	.....
A.....7648	6.3	29 24.6	+3.01	+20 20 39	+19.88	+0.001	.....
B.J.....887	5.2	29 29.1	+2.97	+30 49 42.51	+19.856	+0.00049	−0.012
B.....6060	6.2	29 31.4	+3.09	− 1 44 40.87	+19.860	+0.00051	−0.009
B.....6061	5.9	30 11.1	+2.96	+32 59 57.61	+19.906	+0.00047	+0.029
B.....6063	5.8	30 13.2	+2.93	+39 44 24.48	+19.837	+0.00047	−0.040
A.....7655	6.3	30 21.2	+2.94	+37 31 34	+19.89	0.000	.....
G.....6702	6.7	30 29.6	+2.99	+23 55 44.24	+19.886	+0.00047	0.000
Green...4952	6.1	31 04.4	+2.58	+71 08 39.95	+19.892	+0.00039	.....
G.....6706	6.8	31 07.4	+2.86	+51 47 34.43	+19.892	+0.00044	.....
A.....7659	6.5	31 25.6	+3.00	+24 03 46	+19.90	0.000	.....
Gr.....1514	5.7	31 47.7	+3.06	+ 1 36 09.58	+19.961	+0.00046	+0.061
B.....6070	6.4	33 06.1	+3.03	+16 19 38.04	+19.906	+0.00043	−0.002
A.....7665	6.1	33 07.8	+2.92	+43 55 53	+19.91	0.000	.....
B.J.....890	3.8	33 09.3	+2.93	+45 58 13.48	+19.486	+0.00041	−0.423
B.....6072	5.6	33 24.1	+3.03	+17 54 06.60	+19.929	+0.00043	+0.018
B.J.....891	4.1	33 43.1	+2.93	+42 46 10.83	+19.909	+0.00040	−0.005
B.....6075	5.4	34 46.4	+2.90	+49 58 23.16	+19.916	+0.00038	−0.009
Green...3538	6.0	35 18.3	+2.55	+74 47 37.61	+19.935	+0.00031	0.000
B.J.....892	4.1	35 19.2	+3.08	+ 5 08 18.01	+19.490	+0.00040	−0.440
A.....7673	6.3	35 19.8	+3.05	+ 9 10 43	+19.93	0.000	.....
Green...3980	6.1	35 25.5	+2.59	+73 30 13.91	+19.952	+0.00032	+0.016
B.J.....893	3.3	35 38.7	+2.43	+77 07 48.05	+20.090	+0.00028	+0.157
G.....6735	6.3	35 38.9	+2.79	+63 13 36.17	+19.938	+0.00035	.....
A.E. κAndrom.	4.3	35 58.3	+2.95	+43 50 07.75	+19.912	+0.00036	−0.024
A.....7679	6.5	36 10.3	+2.97	+36 13 16	+19.94	0.000	.....
G.....6741	6.5	36 37.2	+2.95	+41 21 05.48	+19.947	+0.00035	.....
G.....6743	6.4	37 02.9	+2.92	+49 00 49.96	+19.951	+0.00034	.....
A.....7685	6.2	37 21.6	+3.06	+ 6 45 10	+19.95	0.000	.....
N.A.λPiscium	4.6	37 27.2	+3.06	+ 1 17 04.76	+19.795	+0.00035	−0.154
A.....7687	6.4	37 34.1	+2.87	+56 45 40	+19.95	0.000	.....
G.....6747	7.0	37 47.3	+2.95	+44 15 25.20	+19.957	+0.00033	.....
B.....6086	6.7	37 48.6	+2.94	+44 29 34.24	+19.933	+0.00033	−0.019
G.....6751	6.9	38 05.6	+2.81	+64 00 58.49	+19.959	+0.00031	.....
B.....6088	6.7	38 09.6	+3.04	+15 50 09.64	+19.964	+0.00034	+0.008
A.....7691	6.4	38 13.1	+2.84	+61 10 50	+19.96	0.000	.....
B.....6089	5.5	38 47.4	+3.05	+ 9 49 53.90	+19.967	+0.00033	+0.007
Gr.....1520	5.0	39 27.7	+3.01	+28 51 46.38	+19.937	+0.00031	−0.034
B.....6097	6.7	40 24.8	+2.91	+55 17 59.53	+19.960	+0.00028	−0.013
Green...6209	7.0	40 44.2	+2.78	+69 15 19.23	+19.981	+0.00026	.....
A.E.ψ Androm.	5.1	41 34.2	+2.96	+45 55 13.77	+19.974	+0.00026	−0.018
B.....6102	5.6	23 41 47.5	+3.06	+ 2 59 14.51	+19.963	+0.00027	−0.020

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Green...8381	5.9	23 42 18.7	+2.84	+66 16 56.99	+19.991	+0.00023	.....
B.....6105	5.7	42 37.7	+2.92	+56 57 04.94	+19.974	+0.00024	−0.015
B.....6106	5.0	42 39.1	+2.92	+58 09 01.89	+20.045	+0.00024	+0.056
G.....6766	6.8	43 04.6	+2.97	+46 19 56.38	+19.997	+0.00023	.....
Gr.....1522	5.6	43 18.9	+3.08	− 3 15 43.46	+20.002	+0.00024	+0.003
B.J.....895	5.2	43 36.0	+2.85	+67 18 24.17	+19.996	+0.00021	+0.001
G.....6771	7.0	43 44.1	+2.88	+63 19 02.44	+20.001	+0.00021	.....
Green..10058	6.4	44 17.1	+2.89	+64 22 36.13	+19.991	+0.00020	−0.013
B.....6111	5.7	44 26.7	+2.90	+61 42 51.01	+19.996	+0.00020	−0.004
A.....7717	6.5	44 29.0	+2.93	+59 28 42	+20.01	0.000	0.00
B.....6112	6.7	44 46.3	+2.93	+58 27 46.69	+19.983	+0.00020	−0.019
Gr.....1526	5.8	44 50.9	+3.07	+ 0 34 34.87	+19.977	+0.00021	−0.030
Gr.....1527	5.9	45 05.9	+3.03	+28 20 28.66	+20.023	+0.00020	+0.014
A.....7723	6.1	45 09.2	+3.01	+35 55 35	+20.01	0.000	.....
B.....6117	6.8	45 52.2	+2.98	+51 07 17.71	+19.990	+0.00018	−0.018
G.....6782	6.7	46 00.3	+2.91	+63 14 35.99	+20.014	+0.00017	.....
G.....6783	7.0	46 09.8	+2.96	+53 41 56.19	+20.015	+0.00017	.....
G.....6786	6.5	46 34.8	+2.92	+63 29 03.77	+20.018	+0.00016	.....
B.....6121	6.3	46 45.6	+3.06	+ 8 48 51.75	+19.955	+0.00017	−0.058
G.....6789	6.5	47 01.4	+3.01	+41 34 55.97	+20.020	+0.00016	.....
Gr.....1529	5.9	47 21.3	+3.07	+ 2 25 47.82	+20.010	+0.00016	−0.011
Green...2391	6.5	47 37.6	+2.84	+77 06 03.73	+19.923	+0.00014	−0.099
B.....6125	6.4	47 49.1	+3.04	+21 10 13.02	+19.996	+0.00015	−0.022
B.J.....898	5.4	47 54.4	+3.05	+18 37 13.39	+19.979	+0.00015	−0.039
Green...3541	6.6	48 00.5	+2.88	+75 02 33.71	+20.064	+0.00013	+0.041
B.....6128	5.5	48 01.6	+3.06	+10 26 47.49	+20.022	+0.00015	+0.003
B.....6130	7.0	48 05.7	+3.04	+21 14 32.82	+19.994	+0.00015	−0.025
Gr.....1531	6.1	48 18.2	+3.08	− 3 39 19.04	+20.007	+0.00014	−0.019
G.....6795	6.5	48 24.3	+3.02	+36 27 21.95	+20.026	+0.00014	.....
G.....6796	6.8	48 25.3	+3.05	+17 23 58.90	+20.026	+0.00014	.....
G.....6798	6.9	48 27.5	+3.01	+40 50 41.09	+20.026	+0.00013	.....
B.....6133	6.5	48 28.1	+3.07	+ 1 35 24.47	+20.015	+0.00014	−0.006
G.....6802	6.6	48 36.6	+2.96	+60 12 13.98	+20.027	+0.00013	.....
G.....6806	6.5	49 30.4	+3.02	+38 46 51.63	+20.031	+0.00012	.....
B.J.....899	4.8	49 52.9	+2.98	+56 59 55.13	+20.030	+0.00011	+0.004
Gr.....1533	6.0	50 10.2	+3.07	− 0 23 28.73	+20.020	+0.00011	−0.013
A.E. Gr. 4163	6.6	50 26.3	+2.88	+73 54 34.05	+20.024	+0.00009	−0.007
B.....6139	6.3	50 31.4	+3.07	+ 6 34 14.07	+20.019	+0.00010	−0.010
G.....6814	6.3	50 48.1	+3.05	+25 27 15.22	+20.035	+0.00009	.....
B.....6141	7.0	51 00.0	+3.01	+52 14 03.09	+20.058	+0.00009	+0.027
A.....7745	6.1	51 00.8	+3.01	+46 51 18	+20.04	0.000	.....
B.....6142	6.2	51 02.7	+2.99	+56 54 40.44	+20.028	+0.00009	−0.003
G.....6819	6.7	51 14.8	+3.02	+47 43 15.79	+20.037	+0.00008	.....
G.....6821	7.0	51 32.9	+3.04	+32 59 13.72	+20.038	+0.00008	.....
G.....6825	6.1	52 06.2	+3.05	+22 08 49.50	+20.040	+0.00007	.....
Green....924	6.3	52 12.5	+2.74	+82 41 24.03	+20.036	+0.00005	−0.004
B.....6145	6.3	52 29.4	+3.03	+42 09 25.71	+20.024	+0.00006	−0.012
B.....6148	5.6	52 36.0	+3.01	+55 12 17.72	+20.020	+0.00006	−0.016
B.....6150	4.8	53 10.2	+3.05	+24 38 27.71	+20.001	+0.00005	−0.037
B.....6151	7.0	23 53 33.2	+3.02	+49 56 25.32	+20.276	+0.00004	+0.237

Star Catalogue and Number	Magnitude	Mean Right Ascension 1910.0	Annual Precession and Proper Motion	Mean Declination 1910.0	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
		h m s	s	° ′ ″	″	″	″
B.J.....900	5.1	23 54 03.9	+3.07	− 4 03 19.16	+19.971	+0.00003	−0.068
G.....6841	6.6	54 11.6	+3.04	+45 54 44.39	+20.045	+0.00003	.....
G.....6844	7.0	54 17.9	+3.05	+38 36 39.87	+20.045	+0.00002	.....
B.....6155	5.1	54 26.4	+3.03	+55 15 14.16	+20.035	+0.00002	−0.005
G.....6849	6.8	54 39.9	+3.04	+50 01 42.74	+20.046	+0.00002	.....
B.J.....902	3.9	54 41.3	+3.08	+ 6 21 54.08	+19.931	+0.00002	−0.109
B.....6158	6.0	54 54.0	+3.05	+33 13 31.57	+19.960	+0.00001	−0.081
B.....6161	7.0	55 13.0	+2.69	+86 12 19.33	+20.046	0.00000	+0.004
G.....6853	6.5	55 25.5	+3.05	+38 21 28.36	+20.047	0.00000	.....
B.....6162	6.7	55 47.5	+3.06	+26 25 06.67	+20.000	0.00000	−0.043
A.....7768	6.3	55 57.2	+3.03	+59 03 35	+20.05	0.000	.....
A.....7771	6.4	56 43.2	+3.05	+49 28 51	+20.05	0.000	.....
B.....6166	5.9	57 01.1	+3.04	+60 43 18.14	+20.047	−0.00003	+0.003
Green...3991	6.5	57 02.3	+3.03	+73 06 39.88	+20.040	−0.00003	−0.010
B.....6168	6.4	57 07.4	+3.06	+41 51 57.02	+20.033	−0.00003	−0.012
Gr.....1538	5.2	57 12.7	+3.07	− 3 31 42.84	+20.048	−0.00003	−0.002
Green...9278	6.9	57 22.3	+3.04	+65 56 12.66	+20.050	−0.00003	.....
Gr.....1540	5.9	57 28.0	+3.13	+26 36 20.89	+19.070	−0.00003	−0.980
G.....6864	7.0	57 41.2	+3.05	+60 12 08.09	+20.051	−0.00004	.....
B.....6174	6.6	57 47.5	+3.07	+ 8 27 20.72	+20.046	−0.00004	+0.001
B.....6175	5.9	57 53.6	+3.06	+ 7 59 07.98	+20.008	−0.00004	−0.038
B.....6176	6.1	57 59.1	+3.05	+65 35 51.80	+20.041	−0.00005	−0.005
G.....6870	7.0	58 30.9	+3.06	+42 14 48.31	+20.051	−0.00006	.....
A.....7783	6.5	58 48.0	+3.05	+63 07 21	+20.05	0.000	.....
G.....6874	6.9	59 04.6	+3.07	+47 56 09.38	+20.051	−0.00007	.....
Green...8399	6.6	59 13.1	+3.06	+66 12 40.48	+20.031	−0.00007	−0.020
B.....6180	6.1	59 35.1	+3.07	+61 47 11.52	+20.052	−0.00008	+0.006
B.....6183	6.3	23 59 59.0	+3.07	+41 35 30.09	+20.023	−0.00009	−0.023

CATALOGUE OF STARS FROM +83° TO +90° DECLINATION
For 1915.0, 1920.0 and 1925.0.

Year	Magnitude	Mean Right Ascension	Annual Precession and Proper Motion	Mean Declination	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
Green. 521.							
		h m s	s	° ′ ″	″	″	″
1910	5.6	0 46 23	+5.36	+83 13 08.43	+19.622	−0.00166	−0.020
1915		46 50	+5.39	14 46.52	+19.613	−0.00168	−0.020
1920		47 17	+5.42	16 25.56	+19.605	−0.00171	−0.020
1925		47 44	+5.45	18 02.56	+19.596	−0.00174	−0.020
Green. 374.							
		h m s	s	° ′ ″	″	″	″
1910	6.7	0 53 50	+6.14	+84 07 21.38	+19.492	−0.00217	−0.009
1915		54 21	+6.18	08 58.81	+19.481	−0.00221	−0.009
1920		54 52	+6.22	10 36.18	+19.470	−0.00225	−0.009
1925		55 23	+6.26	12 13.50	+19.458	−0.00229	−0.009
B. 218. (B.J. 43 H. Cephei).							
		h m s	s	° ′ ″	″	″	″
1910	4.6	0 56 16	+7.55	+85 46 29.04	+19.440	−0.00279	−0.005
1915		56 54	+7.63	48 06.19	+19.426	−0.00285	−0.005
1920		57 33	+7.70	49 43.29	+19.411	−0.00290	−0.006
1925		58 11	+7.79	51 20.31	+19.396	−0.00296	−0.006
B. 219.							
		h m s	s	° ′ ″	″	″	″
1910	6.8	0 58 16	+16.46	+88 32 29.73	+19.385	−0.00619	−0.017
1915		59 40	+17.03	34 06.57	+19.353	−0.00654	−0.017
1920		1 01 06	+17.63	35 43.26	+19.320	−0.00693	−0.017
1925		02 36	+18.26	37 19.76	+19.283	−0.00734	−0.018
B. 232.							
		h m s	s	° ′ ″	″	″	″
1910	6.6	1 00 36	+9.13	+86 40 00.94	+19.332	−0.00359	−0.017
1915		01 22	+9.25	41 37.55	+19.314	−0.00368	−0.017
1920		02 09	+9.38	43 14.08	+19.296	−0.00377	−0.017
1925		02 56	+9.51	44 50.51	+19.277	−0.00387	−0.017
B. 325. Polaris. (B.J. α Ursae Minoris).							
		h m s	s	° ′ ″	″	″	″
1910	1.9	1 26 56	+27.37	+88 49 33.42	+18.621	−0.01494	0.000
1915		29 16	+28.54	51 06.33	+18.544	−0.01596	0.000
1920		31 41	+29.79	52 38.85	+18.461	−0.01708	−0.001
1925		34 14	+31.12	54 10.94	+18.373	−0.01830	−0.001
Green. 530.							
		h m s	s	° ′ ″	″	″	″
1910	6.9	2 02 53	+8.79	+83 08 21.90	+17.193	−0.00662	−0.046
1915		03 36	+8.84	09 47.77	+17.159	−0.00670	−0.046
1920		04 21	+8.89	11 13.49	+17.126	−0.00679	−0.046
1925		05 05	+8.94	12 39.03	+17.091	−0.00687	−0.046

CATALOGUE OF STARS FROM +83° TO +90° DECLINATION
For 1915.0, 1920.0 and 1925.0.

Year	Magnitude	Mean Right Ascension	Annual Precession and Proper Motion	Mean Declination	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
B. 726.							
		h m s	s	° ′ ″	″	″	″
1910	5.9	3 10 50	+13.57	+84 35 40.86	+13.357	−0.01475	−0.133
1915		11 58	+13.66	36 47.46	+13.283	−0.01490	−0.133
1920		13 06	+13.74	37 53.69	+13.208	−0.01506	−0.133
1925		14 15	+13.82	38 59.54	+13.135	−0.01521	−0.133
B. 830.							
		h m s	s	° ′ ″	″	″	″
1910	6.0	3 37 17	+20.33	+86 21 54.54	+11.624	−0.02432	−0.068
1915		38 59	+20.49	22 52.35	+11.502	−0.02464	−0.069
1920		40 42	+20.66	23 49.55	+11.378	−0.02498	−0.070
1925		42 25	+20.83	24 46.12	+11.252	−0.02531	−0.071
B. 957.							
		h m s	s	° ′ ″	″	″	″
1910	5.6	4 07 14	+13.56	+83 35 28.07	+ 9.484	−0.01747	+0.014
1915		08 22	+13.61	36 15.26	+ 9.396	−0.01757	+0.014
1920		09 31	+13.66	37 02.02	+ 9.308	−0.01768	+0.014
1925		10 39	+13.71	37 48.34	+ 9.219	−0.01779	+0.014
B. 958. (B.J. Gr. 750).							
		h m s	s	° ′ ″	″	″	″
1910	6.8	4 08 00	+17.50	+85 19 04.28	+ 9.444	−0.02258	+0.033
1915		09 27	+17.58	19 51.23	+ 9.331	−0.02277	+0.033
1920		10 56	+17.67	20 37.59	+ 9.217	−0.02296	+0.033
1925		12 24	+17.76	21 23.38	+ 9.102	−0.02315	+0.033
Green. 549.							
		h m s	s	° ′ ″	″	″	″
1910	5.7	4 10 08	+12.88	+83 07 34.15	+ 9.344	−0.01671	+0.095
1915		11 12	+12.93	08 20.66	+ 9.260	−0.01680	+0.095
1920		12 17	+12.97	09 06.75	+ 9.176	−0.01688	+0.095
1925		13 22	+13.01	09 52.43	+ 9.091	−0.01696	+0.095
B. 1191.							
		h m s	s	° ′ ″	″	″	″
1910	6.8	4 59 46	+20.86	+85 50 39.23	+ 5.141	−0.02944	−0.067
1915		5 01 30	+20.93	51 04.58	+ 4.993	−0.02958	−0.068
1920		03 15	+20.99	51 29.17	+ 4.845	−0.02974	−0.068
1925		05 00	+21.05	51 53.02	+ 4.696	−0.02988	−0.068
Green. 258.							
		h m s	s	° ′ ″	″	″	″
1910	6.7	5 13 12	+20.06	+85 35 57.68	+ 4.069	−0.02866	+0.004
1915		14 53	+20.11	36 17.66	+ 3.926	−0.02876	+0.004
1920		16 33	+20.16	36 36.92	+ 3.781	−0.02886	+0.004
1925		18 14	+20.21	36 55.46	+ 3.636	−0.02896	+0.004

CATALOGUE OF STARS FROM +83° TO +90° DECLINATION
For 1915.0, 1920.0 and 1925.0.

Year	Magnitude	Mean Right Ascension	Annual Precession and Proper Motion	Mean Declination	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
B. 1360. (A.E. Gr. 944).							
		h m s	s	° ′ ″	″	″	″
1910	6.5	5 33 02	+18.74	+85 09 14.68	+ 2.358	−0.02717	+0.004
1915		34 35	+18.77	09 26.13	+ 2.222	−0.02722	+0.004
1920		36 09	+18.79	09 36.90	+ 2.086	−0.02728	+0.004
1925		37 43	+18.81	09 46.98	+ 1.949	−0.02732	+0.004
B. 1557.							
		h m s	s	° ′ ″	″	″	″
1910	6.9	6 12 30	+26.65	+86 45 26.47	− 1.189	−0.03884	−0.097
1915		14 43	+26.63	45 20.03	− 1.384	−0.03877	−0.098
1920		16 56	+26.60	45 12.63	− 1.578	−0.03869	−0.098
1925		19 09	+26.56	45 04.27	− 1.771	−0.03861	−0.098
B. 1801. (B.J. 51 H. Cephei).							
		h m s	s	° ′ ″	″	″	″
1910	5.4	6 58 40	+29.38	+87 11 31.34	− 5.112	−0.04136	−0.037
1915		7 01 06	+29.24	11 05.26	− 5.318	−0.04104	−0.037
1920		03 32	+29.09	10 38.16	− 5.522	−0.04071	−0.036
1925		05 57	+28.94	10 10.04	− 5.724	−0.04038	−0.036
Green. 414.							
		h m s	s	° ′ ″	″	″	″
1910	6.3	7 55 30	+14.81	+84 19 13.45	− 9.710	−0.01889	−0.026
1915		56 44	+14.75	18 24.67	− 9.805	−0.01874	−0.026
1920		57 58	+14.69	17 35.41	− 9.898	−0.01858	−0.026
1925		59 11	+14.63	16 45.69	− 9.990	−0.01843	−0.026
B. 2135. (N.A., B.A.C. 2320).							
		h m s	s	° ′ ″	″	″	″
1910	7.0	8 08 41	+62.20	+88 54 16.50	−10.666	−0.07666	+0.007
1915		13 48	+60.56	53 22.22	−11.042	−0.07360	+0.008
1920		18 47	+58.94	52 26.10	−11.402	−0.07058	+0.008
1925		23 37	+57.33	51 28.23	−11.747	−0.06760	+0.008
B. 2415.							
		h m s	s	° ′ ″	″	″	″
1910	6.5	8 56 44	+13.12	+84 32 39.78	−13.953	−0.01367	+0.019
1915		57 50	+13.03	31 29.85	−14.021	−0.01352	+0.019
1920		58 55	+12.95	30 19.58	−14.088	−0.01337	+0.019
1925		59 59	+12.87	29 08.99	−14.154	−0.01322	+0.019
Green. 431.							
		h m s	s	° ′ ″	″	″	″
1910	6.5	9 54 19	+10.12	+84 21 13.84	−17.099	−0.00762	+0.013
1915		55 09	+10.05	19 48.24	−17.136	−0.00752	+0.013
1920		55 59	+ 9.98	18 22.47	−17.173	−0.00742	+0.013
1925		56 49	+ 9.90	16 56.51	−17.210	−0.00732	+0.013

Year	Magnitude	Mean Right Ascension	Annual Precession and Proper Motion	Mean Declination	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
Green. 602.							
		h m s	s	° ′ ″	″	″	″
1910	6.9	10 13 05	+ 8.16	+83 15 17.33	−17.921	−0.00527	−0.011
1915		13 46	+ 8.11	13 47.67	−17.947	−0.00521	−0.011
1920		14 27	+ 8.06	12 17.87	−17.973	−0.00515	−0.011
1925		15 07	+ 8.01	10 47.95	−17.998	−0.00509	−0.011
B. 2745.							
		h m s	s	° ′ ″	″	″	″
1910	5.6	10 16 43	+ 9.27	+84 42 36.62	−18.085	−0.00576	−0.040
1915		17 29	+ 9.19	41 06.13	−18.113	−0.00567	−0.040
1920		18 15	+ 9.12	39 35.50	−18.141	−0.00559	−0.040
1925		19 00	+ 9.05	38 04.72	−18.170	−0.00550	−0.040
B. 2762. (B.J. 30 H. Camelopardi).							
		h m s	s	° ′ ″	″	″	″
1910	5.3	10 20 12	+ 7.63	+83 01 01.70	−18.150	−0.00459	+0.024
1915		20 50	+ 7.59	+82 59 30.90	−18.173	−0.00454	+0.024
1920		21 27	+ 7.54	57 59.97	−18.196	−0.00448	+0.025
1925		22 05	+ 7.50	56 28.93	−18.218	−0.00443	+0.025
B. 3154.							
		h m s	s	° ′ ″	″	″	″
1910	6.5	12 00 13	+ 3.00	+86 05 09.12	−19.958	+0.00009	+0.088
1915		00 28	+ 2.98	03 29.33	−19.958	+0.00009	+0.088
1920		00 43	+ 2.96	01 49.54	−19.957	+0.00010	+0.088
1925		00 57	+ 2.94	00 09.76	−19.956	+0.00010	+0.088
B. 3204.							
		h m s	s	° ′ ″	″	″	″
1910	6.5	12 14 14	+ 1.79	+86 56 09.77	−20.013	+0.00027	−0.006
1915		14 23	+ 1.78	54 29.70	−20.012	+0.00027	−0.006
1920		14 31	+ 1.78	52 49.65	−20.011	+0.00027	−0.006
1925		14 40	+ 1.77	51 09.60	−20.010	+0.00027	−0.006
B. 3208. (N.A., B.A.C. 4165).							
		h m s	s	° ′ ″	″	″	″
1910	6.5	12 14 26	+ 0.33	+88 11 55.71	−19.948	+0.00011	+0.058
1915		14 28	+ 0.36	10 15.97	−19.948	+0.00011	+0.058
1920		14 30	+ 0.40	08 36.23	−19.947	+0.00012	+0.058
1925		14 32	+ 0.43	06 56.50	−19.946	+0.00012	+0.058
Green. 630.							
		h m s	s	° ′ ″	″	″	″
1910	6.0	12 48 20	+ 0.44	+83 54 25.96	−19.589	+0.00020	+0.018
1915		48 22	+ 0.45	52 48.02	−19.588	+0.00021	+0.018
1920		48 24	+ 0.46	51 10.08	−19.587	+0.00022	+0.018
1925		48 27	+ 0.47	49 32.15	−19.586	+0.00022	+0.018

Year	Magnitude	Mean Right Ascension	Annual Precession and Proper Motion	Mean Declination	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
B. 3356. (A.E. 32 H. Camelopardi).							
		h m s	s	° ′ ″	″	″	″
1910	5.5	12 48 27	+ 0.43	+83 54 07.54	−19.585	+0.00021	+0.015
1915		48 30	+ 0.44	52 27.62	−19.584	+0.00021	+0.015
1920		48 32	+ 0.45	50 51.70	−19.583	+0.00022	+0.015
1925		48 34	+ 0.46	49 13.80	−19.581	+0.00022	+0.015
Green. 641.							
		h m s	s	° ′ ″	″	″	″
1910	6.1	13 44 52	− 1.85	+83 12 14.82	−18.034	−0.00112	−0.044
1915		44 42	− 1.83	10 44.64	−18.039	−0.00109	−0.044
1920		44 33	− 1.80	09 14.43	−18.044	−0.00107	−0.044
1925		44 24	− 1.78	07 44.19	−18.050	−0.00104	−0.044
Green. 197.							
		h m s	s	° ′ ″	″	″	″
1910	7.0	14 47 48	−10.84	+86 19 18.76	−14.913	−0.01050	0.000
1915		46 54	−10.70	18 04.07	−14.965	−0.01033	0.000
1920		46 01	−10.55	16 49.12	−15.016	−0.01015	0.000
1925		45 09	−10.41	15 33.91	−15.066	−0.00997	0.000
Green. 326.							
		h m s	s	° ′ ″	″	″	″
1910	7.0	15 40 53	− 9.81	+85 07 29.18	−11.493	−0.01170	−0.055
1915		40 04	− 9.73	06 31.58	−11.550	−0.01158	−0.055
1920		39 16	− 9.66	05 33.68	−11.608	−0.01147	−0.055
1925		38 27	− 9.58	04 35.50	−11.665	−0.01135	−0.055
B. 4591. (B.J. δ Ursae Minoris).							
		h m s	s	° ′ ″	″	″	″
1910	4.3	18 01 18	−19.50	+86 36 50.64	+ 0.162	−0.02840	+0.048
1915		17 59 40	−19.50	36 51.10	+ 0.020	−0.02840	+0.048
1920		58 03	−19.49	36 50.85	− 0.122	−0.02840	+0.049
1925		56 25	−19.49	36 49.88	− 0.264	−0.02839	+0.049
B. 4605.							
		h m s	s	° ′ ″	″	″	″
1910	6.0	18 04 04	−22.32	+86 59 43.91	+ 0.363	−0.03244	+0.007
1915		02 13	−22.32	59 45.32	+ 0.201	−0.03244	+0.008
1920		00 20	−22.33	59 45.92	+ 0.039	−0.03244	+0.008
1925		17 58 30	−22.32	59 45.71	− 0.124	−0.03245	+0.008
Green. 678.							
		h m s	s	° ′ ″	″	″	″
1910	6.2	18 36 03	− 7.84	+83 06 37.05	+ 3.114	−0.01131	−0.028
1915		35 24	− 7.86	06 52.48	+ 3.057	−0.01133	−0.028
1920		34 45	− 7.87	07 07.62	+ 3.001	−0.01135	−0.028
1925		34 06	− 7.88	07 22.49	+ 2.944	−0.01136	−0.028

Year	Magnitude	Mean Right Ascension	Annual Precession and Proper Motion	Mean Declination	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
Green. 213.							
		h m s	s	° ′ ″	″	″	″
1910	6.8	18 44 36	−18.95	+86 35 28.70	+ 3.904	−0.02712	+0.027
1915		43 01	−19.02	35 47.87	+ 3.767	−0.02725	+0.027
1920		41 27	−19.08	36 06.36	+ 3.630	−0.02738	+0.027
1925		39 50	−19.15	36 24.17	+ 3.493	−0.02751	+0.027
Green. 682.							
		h m s	s	° ′ ″	″	″	″
1910	6.8	19 02 35	− 8.73	+83 47 05.21	+ 5.384	−0.01228	−0.024
1915		01 51	− 8.76	47 31.97	+ 5.322	−0.01232	−0.024
1920		01 07	− 8.78	47 58.43	+ 5.260	−0.01236	−0.024
1925		00 23	− 8.81	48 24.58	+ 5.198	−0.01239	−0.024
B. 4971. (B.J. λ Ursae Minoris).							
		h m s	s	° ′ ″	″	″	″
1910	6.8	19 10 58	−70.40	+89 00 21.81	+ 6.118	−0.09792	+0.010
1915		05 03	−71.59	00 51.17	+ 5.622	−0.10040	+0.009
1920		18 59 02	−72.71	01 18.01	+ 5.114	−0.10271	+0.008
1925		52 56	−73.74	01 42.30	+ 4.596	−0.10487	+0.007
Green. 684.							
		h m s	s	° ′ ″	″	″	″
1910	6.4	19 26 43	− 7.46	+83 17 21.31	+ 7.443	−0.01014	+0.036
1915		26 05	− 7.49	17 58.40	+ 7.392	−0.01018	+0.036
1920		25 28	− 7.51	18 37.22	+ 7.341	−0.01022	+0.036
1925		24 50	− 7.54	19 11.80	+ 7.290	−0.01026	+0.036
Green. 694.							
		h m s	s	° ′ ″	″	″	″
1910	6.2	20 38 09	− 5.70	+83 18 52.47	+12.749	−0.00646	−0.015
1915		37 40	− 5.74	19 56.13	+12.716	−0.00651	−0.015
1920		37 11	− 5.78	20 59.63	+12.684	−0.00656	−0.015
1925		36 43	− 5.81	22 02.97	+12.651	−0.00660	−0.015
Green. 703.							
		h m s	s	° ′ ″	″	″	″
1910	7.0	21 49 51	− 3.29	+83 37 06.25	+16.925	−0.00266	+0.020
1915		49 35	− 3.33	38 30.84	+16.911	−0.00268	+0.020
1920		49 18	− 3.37	39 55.36	+16.898	−0.00270	+0.020
1925		49 01	− 3.40	41 19.81	+16.884	−0.00271	+0.020
B. 5784.							
		h m s	s	° ′ ″	″	″	″
1910	5.4	22 20 36	− 4.27	+85 39 19.79	+18.239	−0.00266	+0.049
1915		20 15	− 4.34	40 50.95	+18.225	−0.00271	+0.049
1920		19 53	− 4.41	42 22.05	+18.212	−0.00276	+0.050
1925		19 31	− 4.48	43 53.08	+18.198	−0.00282	+0.050

Year	Magnitude	Mean Right Ascension	Annual Precession and Proper Motion	Mean Declination	Annual Precession and Proper Motion	Change per Year in Annual Precession	Proper Motion
B. 5787.							
		h m s	s	° ′ ″	″	″	″
1910	7.0	22 20 57	− 4.46	+85 46 10.72	+18.218	−0.00278	+0.015
1915		20 35	− 4.53	47 41.78	+18.204	−0.00283	+0.015
1920		20 12	− 4.60	49 12.76	+18.190	−0.00289	+0.016
1925		19 49	− 4.68	51 43.68	+18.176	−0.00294	+0.016
Green. 511.							
		h m s	s	° ′ ″	″	″	″
1910	6.2	22 53 18	− 1.19	+84 53 29.63	+19.301	−0.00058	+0.094
1915		53 12	− 1.22	55 06.13	+19.298	−0.00059	+0.094
1920		53 05	− 1.25	56 42.61	+19.295	−0.00060	+0.094
1925		52 59	− 1.28	58 19.08	+19.292	−0.00061	+0.094
Green. 712.							
		h m s	s	° ′ ″	″	″	″
1910	5.0	22 55 10	− 0.34	+83 51 52.75	+19.268	−0.00023	+0.014
1915		55 08	− 0.35	53 29.08	+19.267	−0.00022	+0.014
1920		55 06	− 0.37	55 05.41	+19.265	−0.00022	+0.014
1925		55 04	− 0.39	56 41.74	+19.264	−0.00022	+0.014
Green. 360.							
		h m s	s	° ′ ″	″	″	″
1910	6.6	23 24 24	+ 0.15	+85 55 20.63	+19.841	−0.00005	+0.031
1915		24 25	+ 0.14	56 59.83	+19.840	−0.00006	+0.031
1920		24 26	+ 0.12	58 39.03	+19.840	−0.00006	+0.031
1925		24 26	+ 0.10	+86 00 18.23	+19.840	−0.00007	+0.031
B. 6056. (N.A., B.A.C. 8213).							
		h m s	s	° ′ ″	″	″	″
1910	5.9	23 27 47	− 0.19	+86 48 39.65	+19.866	−0.00010	+0.018
1915		27 46	− 0.22	50 18.98	+19.866	−0.00011	+0.018
1920		27 45	− 0.25	51 58.31	+19.865	−0.00012	+0.018
1925		27 44	− 0.29	53 37.63	+19.864	−0.00012	+0.018
B. 6161.							
		h m s	s	° ′ ″	″	″	″
1910	7.0	23 55 13	+ 2.69	+86 12 19.33	+20.046	0.00000	+0.004
1915		55 26	+ 2.71	13 59.56	+20.046	−0.00001	+0.004
1920		55 40	+ 2.73	15 39.79	+20.046	−0.00001	+0.004
1925		55 54	+ 2.74	17 20.02	+20.045	−0.00001	+0.004

CORRECTION TO LATITUDE FOR DIFFERENTIAL REFRACTION. ½ (r-r′).

(The sign of the correction is the same as that of the micrometer difference).

½ diff. Zen. Dist.	Zenith Distances.							
	0°	10°	20°	25°	30°	35°	40°	45°
′	″	″	″	″	″	″	″	″
0	.00	.00	.00	.00	.00	.00	.00	.00
0.5	.01	.01	.01	.01	.01	.01	.01	.02
1	.02	.02	.02	.02	.02	.02	.03	.03
1.5	.03	.03	.03	.03	.03	.03	.04	.05
2	.03	.03	.04	.04	.04	.05	.06	.07
2.5	.04	.04	.05	.05	.05	.06	.07	.08
3	.05	.05	.06	.06	.07	.08	.09	.10
3.5	.06	.06	.07	.07	.08	.09	.10	.12
4	.07	.07	.08	.08	.09	.10	.11	.13
4.5	.08	.08	.09	.09	.10	.11	.13	.15
5	.08	.09	.10	.10	.11	.13	.14	.17
5.5	.09	.10	.10	.11	.12	.14	.16	.18
6	.10	.10	.11	.12	.13	.15	.17	.20
6.5	.11	.11	.12	.13	.14	.16	.19	.22
7	.12	.12	.13	.14	.15	.18	.20	.24
7.5	.13	.13	.14	.15	.16	.19	.21	.25
8	.13	.14	.15	.16	.18	.21	.23	.27
8.5	.14	.15	.16	.17	.19	.22	.24	.29
9	.15	.16	.17	.18	.20	.23	.26	.30
9.5	.16	.17	.18	.20	.21	.24	.27	.32
10	.17	.18	.19	.21	.23	.26	.29	.34
10.5	.18	.19	.20	.22	.24	.27	.30	.35
11	.18	.19	.21	.23	.25	.28	.31	.37
11.5	.19	.20	.22	.24	.26	.30	.33	.39
12	.20	.21	.23	.25	.27	.31	.34	.40
12.5	.21	.21	.24	.26	.28	.32	.36	.42
13	.22	.22	.25	.27	.29	.33	.37	.44
13.5	.23	.23	.26	.28	.30	.34	.39	.45
14	.23	.24	.27	.29	.31	.35	.40	.47
14.5	.24	.25	.28	.30	.32	.36	.41	.49
15	.25	.26	.28	.31	.34	.38	.43	.50
15.5	.26	.27	.29	.32	.35	.39	.44	.52
16	.27	.28	.30	.33	.36	.40	.46	.54
16.5	.28	.29	.31	.34	.37	.41	.47	.55
17	.28	.29	.32	.35	.38	.42	.49	.57
17.5	.29	.30	.33	.36	.39	.44	.50	.59
18	.30	.31	.34	.37	.40	.45	.52	.60
18.5	.31	.32	.35	.38	.41	.46	.53	.62
19	.32	.33	.36	.39	.43	.48	.54	.64
19.5	.33	.34	.37	.40	.44	.49	.56	.66

NOTE.—If the altitude of the station is such that the barometer reading is below 27 inches, the tabulated values should be reduced by 10 per cent.

CORRECTION TO LATITUDE FOR DIFFERENTIAL REFRACTION. ½ (r-r').

(The sign of the correction is the same as that of the micrometer difference).

½ diff. Zen. Dist.	Zenith Distances.							
	0°	10°	20°	25°	30°	35°	40°	45°
′	″	″	″	″	″	″	″	″
20	.34	.35	.38	.41	.45	.50	.57	.67
20.5	.34	.35	.39	.42	.46	.51	.58	.68
21	.35	.36	.40	.43	.47	.52	.60	.70
21.5	.36	.37	.41	.44	.48	.54	.61	.72
22	.37	.38	.42	.45	.49	.55	.63	.74
22.5	.38	.39	.43	.46	.50	.56	.64	.75
23	.38	.40	.44	.47	.51	.57	.66	.77
23.5	.39	.41	.45	.48	.52	.59	.67	.79
24	.40	.41	.46	.49	.54	.60	.69	.81
24.5	.41	.42	.47	.50	.55	.61	.70	.82
25	.42	.43	.47	.51	.56	.62	.71	.84
25.5	.42	.44	.48	.52	.57	.63	.72	.85
26	.43	.45	.49	.53	.58	.65	.74	.87
26.5	.44	.46	.50	.54	.59	.66	.75	.89
27	.45	.46	.51	.55	.60	.67	.77	.90
27.5	.46	.47	.52	.56	.61	.69	.78	.92
28	.47	.48	.53	.57	.62	.70	.80	.94
28.5	.48	.49	.54	.58	.64	.71	.81	.96
29	.49	.50	.55	.59	.65	.72	.83	.97
29.5	.49	.51	.56	.60	.66	.74	.84	.99
30	.50	.52	.57	.61	.67	.75	.86	1.01
30.5	.51	.52	.58	.62	.68	.76	.87	1.02
31	.52	.53	.59	.63	.69	.77	.88	1.04
31.5	.53	.54	.60	.64	.70	.78	.90	1.05
32	.53	.55	.61	.65	.71	.80	.91	1.07
32.5	.54	.56	.62	.66	.72	.81	.93	1.09
33	.55	.57	.63	.67	.74	.82	.94	1.11
33.5	.56	.58	.64	.68	.75	.84	.96	1.12
34	.57	.59	.64	.69	.76	.85	.97	1.14
34.5	.58	.60	.65	.70	.77	.86	.99	1.16
35	.59	.60	.66	.71	.78	.87	1.00	1.17
35.5	.59	.61	.67	.72	.79	.89	1.01	1.19
36	.60	.62	.68	.73	.80	.90	1.02	1.20
36.5	.61	.63	.69	.74	.81	.91	1.04	1.22
37	.62	.64	.70	.75	.82	.92	1.05	1.24
37.5	.63	.65	.71	.76	.84	.93	1.07	1.26
38	.64	.65	.72	.77	.85	.95	1.08	1.27
38.5	.64	.66	.73	.78	.86	.96	1.10	1.29
39	.65	.67	.74	.80	.87	.97	1.11	1.31
39.5	.66	.68	.75	.81	.88	.99	1.13	1.32

NOTE.—If the altitude of the station is such that the barometer reading is below 27 inches, the tabulated values should be reduced by 10 per cent.

CORRECTION TO LATITUDE FOR DIFFERENTIAL REFRACTION. $\frac{1}{2}$ (r-r')

(The sign of the correction is the same as that of the micrometer difference).

$\frac{1}{2}$ diff. Zen. Dist.	Zenith Distances.							
	0°	10°	20°	25°	30°	35°	40°	45°
′	″	″	″	″	″	″	″	″
40	.67	.69	.76	.82	.89	1.00	1.14	1.34
40.5	.68	.70	.77	.83	.90	1.01	1.16	1.36
41	.69	.71	.78	.84	.91	1.02	1.17	1.37
41.5	.69	.71	.79	.85	.92	1.03	1.18	1.39
42	.70	.72	.80	.86	.94	1.05	1.20	1.41
42.5	.71	.73	.81	.87	.95	1.06	1.21	1.42
43	.72	.74	.82	.88	.96	1.07	1.23	1.44
43.5	.73	.75	.82	.89	.97	1.09	1.24	1.46
44	.74	.76	.83	.90	.98	1.10	1.26	1.47
44.5	.74	.77	.84	.91	.99	1.11	1.27	1.49
45	.75	.78	.85	.92	1.00	1.12	1.29	1.51

NOTE.—If the altitude of the station is such that the barometer reading is below 27 inches, the tabulated values should be reduced by 10 per cent.

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